

# **Yacht or Private Power-Driven Small Ship Master's Exam Questions Database**

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### **Second Class Yacht/ Private Power-Driven Small Ship**

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## Maritime Regulations

### 1 1 License Qualification, etc.

- A 1 What length is first class yacht?  
A) 24 meters  
B) 26 meters  
C) 28 meters  
D) 30 meters
- C 2 A second Class yacht is a yacht that is under what length?  
A) 12 meters  
B) 18 meters  
C) 24 meters  
D) 30 meters
- D 3 A yacht assistant is an on board personnel that is in charge of what?  
A) Propulsion system maintenance  
B) Running the ropes at dock  
C) Steers the vessel  
D) Assists the captain with all matters related to the operation of the ship.
- B 4 A yacht under 24 meters about to sail should by law must have as a bare minimum which crew?  
A) A captain  
B) A captain and an assistant  
C) A captain and two assistants  
D) A captain and three assistants
- A 5 A Yachts under 24 meters in length and a tonnage under 5 tons or a tonnage over 5 tons but carrying under 12 passengers should have a crew consisting of which crew?  
A) Captain  
B) A captain and an assistant  
C) A captain and two assistants  
D) A captain and three assistants
- D 6 What is the minimum age limit for a yacht captain?  
A) 15  
B) 16  
C) 17  
D) 18
- B 7 What is the minimum age limit for a yacht assistant?  
A) 15  
B) 16  
C) 17  
D) 18
- D 8 What is the maximum age limit for a yacht assistant?  
A) 65  
B) 66  
C) 67  
D) No maximum age limit

## 1 Maritime Regulations

### 1 1 License Qualification, etc.

- D 9 What is the minimum age limit for an individual to become eligible for a second class yacht learner's license?
- A) 15
  - B) 16
  - C) 17
  - D) 18
- A 10 The visual acuity test portion of the yacht license physical exam is a Landolt C test administered from a distance of 5 meters. What is the minimum score needed for each eye to pass the exam?
- A) 0.5 or more
  - B) 0.7 or more
  - C) 0.8 or more
  - D) 1.0 or more
- C 11 A person is eligible to apply for a yacht's captain licence when he or she is able to visually discriminate between which colors?
- A) Red, yellow, blue.
  - B) Red, green, orange.
  - C) Red, green, blue.
  - D) Red, green, yellow.
- A 12 A captain or assistant with a physical disability can still pass his physical examination when they meet which of the following conditions?
- A) Undergo therapy to the extent that their disability no longer affect the normal operation of a ship
  - B) Undergo therapy to the extent that their disabilities only slightly hinder the normal operation of a ship
  - C) They do not undergo corrective therapy
  - D) Candidate with disabilities are always rejected regardless if they underwent corrective therapy
- D 13 The physical examination required for renewing the captain's and assistant's license before its expiration date should contain which of the following exams?
- A) Physical impairment test
  - B) A visual acuity test
  - C) A hearing test
  - D) All of the above
- D 14 The physical examination for the captain's and assistant's license cannot be performed at which of the following places?
- A) Central health & welfare administration licensed Hospitals
  - B) Any clinic with a specialized doctor licensed to perform the examination
  - C) Counties and municipalities bureaus and health centers
  - D) Can be performed at any hospital
- B 15 How long is the validity period for a captain's medical examination certificate?
- A) One year
  - B) Two years
  - C) Three years
  - D) Four years

## 1 Maritime Regulations

### 1 1 License Qualification, etc.

- C 16 Which of the following credentials exempts an ROC national from taking the yacht license exam?
- A) A university or vocational school degree in either navigation, piloting, fishing, fishery or related fields
  - B) A certificate proving that the candidate has worked on board a power boat, government boat or fishing vessel in either the deck or engineering department for one year or more
  - C) A certificate proving that the candidate has worked on board a power boat, government boat or fishing vessel in either the deck or engineering department for between 6 months to a year
  - D) A certificate of completion for passing the yacht or motorboat training program at a certified facility or holding a student license for a personal use power boat or second class yacht for over 3 months.
- D 17 Foreigners (including those from Mainland China, Hong-Kong and Macau residents) who have been allowed to stay in Taiwan for over a year are exempt from taking the yacht license examination when they hold which degree or certificate?
- A) A university or vocational school degree in navigation, piloting, fisheries and related fields
  - B) A certificate of completion for passing the yacht or motorboat training program at a certified facility or holding a student license for a personal use power boat or second class yacht for over 3 months.
  - C) A degree in marine tourism or the like from a certified university
  - D) A certificate proving that the candidate has worked on board a power boat, government boat or fishing vessel in either the deck or engineering department for one year or more
- C 18 Which license holder can legally supervise a trainee for a captain's license when operating a vessel underway?
- A) Private powerboat license
  - B) First class yacht license
  - C) Second class yacht license or Business powerboat's license
  - D) second-class yacht license or private powerboat license.
- B 19 A person who is training for a boat's captain license should practice in waters and time of day as designated by whom?
- A) Local maritime authorities
  - B) The management agency of the local waters
  - C) Licensed boat training center
  - D) Local county or city government
- A 20 Which of the following licenses does not qualify you to apply for a second class yacht license?
- A) A small power boat license awarded less for less than a year
  - B) Power boat license or Merchant ship 3rd mate's license
  - C) A fishing boat second mate's license or above
  - D) Having served in the navy or the coast guards for over a year

## 1 Maritime Regulations

### 1 1 License Qualification, etc.

- A 21 Which individual is eligible for the issuance of a first-class yacht master's license?
- A) Having held the business powerboat master's license or second-class yacht master's license for 1 year or more and having been trained in first-class yacht driving (including subject training and practical training) by a yacht training institution certified by the relevant authorities with the certificate of completion presented.
- B) Having held the business powerboat master's license or second-class yacht master's license for 1 year or more but not having been trained in first-class yacht driving (including subject training and practical training) by a yacht training institution certified by the relevant authorities with the certificate of completion presented.
- C) Having held the business powerboat master's license or second-class yacht master's license less than 1 year and having been trained in first-class yacht driving (including subject training and practical training) by a yacht training institution certified by the relevant authorities with the certificate of completion presented.
- D) Having held the business powerboat master's license or second-class yacht master's license for 3 year or more.
- D 22 Which of the following conditions do not qualify an individual to apply for a first-class yacht license?
- A) Having obtained a certificate of qualification of a third class captain or above for a merchant boat or an equal certificate of competency or a certificate of completion for onshore promotion training.
- B) Having obtained the practicing certificate of a first class or second class captain for a fishing boat
- C) Having worked as a ship captain in the navy or coast guards for 1 year or more.
- D) Having obtained the certificate of competency of Third Mate for a merchant boat
- D 23 The boat used for the practical portion of the licensing exam must be prepared by the examinees. The total length of the boat must be at least more than how many meters?
- A) 5 meters or more
- B) 7 meters or more
- C) 8 meters or more
- D) 10 meters or more
- C 24 A second class yacht license exam is graded out of a hundred for each individual subject. What is the lowest passing score for each subject?
- A) 65
- B) 70
- C) 75
- D) 80
- C 25 A second class yacht candidate that fails to pass either the written test or practice test is allowed to retake the failed exam within how many months?
- A) 3 months
- B) 6 months
- C) 1 year
- D) 2 years

## 1 Maritime Regulations

### 1 1 License Qualification, etc.

- A 26 A yacht master's license is valid for a period of how many years?  
A) 5 years  
B) 4 years  
C) 3 years  
D) 2 years
- B 27 A yacht master who fails to renew his/her license is forbidden to command a yacht how many days before or after the expiry date?  
A) 10 days prior to the expiry date  
B) On the day the license expires.  
C) 10 days past the expiry date  
D) 15 days past the expiry date
- A 28 A yacht master shall observe collision prevention rules at all times and must use the appropriate sound and visual signals as provided by law. Failing to comply with the rules can result in what?  
A) A warning  
B) A citation  
C) Demotion  
D) License revocation
- C 29 A yacht master must report navigational hazards encountered en route such as oil slicks, uncharted sand bars, uncharted submerged reefs and other obstructions including accidents and severe weather changes to whom?  
A) The yacht owner  
B) The coast guard  
C) The Shipping administration authority  
D) Police
- A 30 If a yacht master must does not report navigational hazards encountered en route such as oil slicks, uncharted sand bars, uncharted submerged reefs and other obstructions including accidents and severe weather changes to the shipping administration authorities, he may face which of the following penalties?  
A) Warning or Demerit being issued  
B) Infraction Recorded on the yacht master's license  
C) Demotion  
D) License revocation
- D 31 In the event of a serious accident, the yacht master should take emergency measures to minimize the risk of danger and prioritize contacting which of the following parties?  
A) The yacht owner  
B) Police  
C) Coast Guards  
D) The shipping administration Authority
- B 32 If a yacht is stranded, sunk, or malfunctions due to a maritime casualty or other accident, to prevent polluting the coast and nearby waters, the master shall not only report the incident but take which of the following measures?  
A) Prevent fires  
B) Prevent oil from spilling or leaking  
C) Prevent people from slipping on the boat  
D) Prepare life-saving facilities to save lives

## 1 Maritime Regulations

### 1 1 License Qualification, etc.

- A 33 If a Yacht faces a clear and present danger; the yacht master's top priority is to save what?
- A) His/her yacht and all human life on board
  - B) Money and precious articles
  - C) Yacht documents
  - D) The mail
- D 34 What should be the captain's priority when abandoning ship?
- A) Save passengers and crews
  - B) The boat's documents and mail
  - C) Money and precious articles
  - D) All of the above
- A 35 When abandoning ship, if the yacht master fails to try to rescue passengers, crew, the ship's documents, mail, money and valuables, what punishment could he face?
- A) Imprisonment for seven years or less
  - B) Imprisonment for seven years or less and a fine
  - C) Demerit
  - D) Warning
- A 36 When abandoning ship, a captain that does not to the best of his abilities endeavor to rescue passengers and crew resulting in the loss of life faces which of the following punishments?
- A) Imprisonment from 3 to 10 years
  - B) Imprisonment from 3 to 10 years with fine
  - C) Provide 5 million NT\$ compensation
  - D) Life imprisonment
- D 37 After a collision, the captain or master of each yacht involved shall endeavor to rescue which of the following items without further causing danger to other boats, his crew and his passengers?
- A) Salvage the other ship involved in the collision.
  - B) Save the other ship's crew
  - C) Save the other ship's passengers
  - D) All of the above
- B 38 After a collision between yachts, if it can't be discerned that further assistance is required, what should each captain do as the situation would permit?
- A) Sail away from the site of the disaster
  - B) Stand by at the site of the collision
  - C) Communicate to the other ship his registration particular and next port of call before sailing away
  - D) None of above
- C 39 A captain is bound so far as he can do so without endangering the safety of his yacht and crew to unequivocally and unconditionally do what?
- A) Assist in the recovery of Floating goods
  - B) Assist in the recovery of a drowning animals
  - C) Assist persons in danger and MOB recovery (Man Over Board)
  - D) All of the above

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- A 1 A yacht is a vessel primarily driven by mechanical means and is exclusively intended for which purpose?
- A) Entertainment
  - B) Transporting passengers
  - C) Transporting goods
  - D) Fishing
- A 2 If a yacht is used for passenger or cargo transportation, commercial fishing, or any other purposes than entertainment, what penalty shall the shipping administration authority impose on the owner or the yacht master?
- A) A fine between NT\$15,000 and NT\$150,000
  - B) An imprisonment under 1 years
  - C) An imprisonment under 1 years and fine
  - D) Warning
- C 3 If a yacht owner or yacht master has been fined twice or more within a year for improper use like transporting passengers and cargo or engaging into commercial fishing; The yacht's right to navigation can be withdrawn for how long?
- A) Between 3 days and one months
  - B) Between 5 days and one months
  - C) Between 7 days and one months
  - D) Between 10 days and one months
- B 4 The purpose of yacht is exclusively for entertainment. Which of the following activities is within the scope of entertainment?
- A) Gambling
  - B) Fishing activity not for business purpose
  - C) Drug party
  - D) Sex party
- B 5 Which acts are private Yacht owners permitted to do with their yachts?
- A) Entertain guest for a fee?
  - B) Lend their boat to friends to Entertain themselves for free?
  - C) Lend their boat to friends for a fee to cover fuel and maintenance expenses?
  - D) Rent their boat when the boat is not in use.
- B 6 What is the definition of a "commercial yacht" ?
- A) A yacht used by the owner to entertain guests at no cost
  - B) A yacht that is chartered out for entertainment purposes
  - C) A yacht used for ticketing passengers for entertainment purposes.
  - D) A yacht that is chartered and used to ticket passengers for entertainment purposes.
- C 7 Yachts charters are yachts made available for rent to who?
- A) Anyone
  - B) Anyone even if they do not hold a captain's license
  - C) Anyone provide they hold a captain's license
  - D) Anyone with a professional crew

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- A 8 A yacht owned by an incorporated yacht club can make the said yacht available to who?  
A) Club members only  
B) Members from other yacht clubs  
C) Members of any club or association  
D) The general public
- C 9 The yacht certification agency refers to which of the following institutions?  
A) A yacht design studio  
B) A yacht construction yard  
C) The Chinese ship survey and sea airworthiness certification agency  
D) Licensed marine surveyor
- C 10 Which certificate a yacht shall have in order to be allowed to navigate?  
A) R.O.C Certificate of nationality  
B) A Provisional Certificate  
C) A Yacht certificate  
D) Yacht driving License
- D 11 When is a visiting R.O.C.-flagged yachts prohibited from flying a foreign flag?  
A) On the National Day of a foreign country at the visited foreign port of call  
B) On any memorial day of a foreign country at the visited foreign port of call  
C) When saluting or participating in local celebrations at the foreign port of call  
D) Other conditions than the foregoing not prescribed by law.
- D 12 A republic of China (R.O.C) Yacht visiting a foreign port is required to fly the ROC flag on the National days. Failure to do so shall prompt the shipping administration authority to impose what penalty on the yacht owner and captain ?  
A) Warning  
B) Navigating prohibition  
C) Demerit  
D) a fine between NT\$6,000 and NT\$60,000
- B 13 A motor sailer is a yacht fitted with a ballast keel and which propulsive is provided by what?  
A) The power of the sailor  
B) By an auxiliary boat engine  
C) Auxiliary boat engine and sail power  
D) Sail power alone
- A 14 Which penalty faces a yacht owner or her captain that puts to sea without a valid "Yacht certificate"?  
A) A fine between NT\$6,000 and NT\$60,000  
B) Navigating prohibition  
C) Demerit  
D) Warning
- A 15 If the yacht's various licenses are lost or damaged, the yacht owner should re-apply for new documents within how many months?  
A) Within three months  
B) Within four months  
C) Within five months  
D) Within six month

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- A 16 If the yacht's any certificate is missing, broken, or any alteration of entry of any certificate's registration occurs, the yacht owner fails to apply for replacement, re-issuance of the certificate or change of registration within the prescribed time limit from the date of discovery or occurrence. What punishment will the shipping administration authority impose on the yacht owner or yacht master ?
- A) A fine between NT\$3,000 and NT\$30,000
  - B) Navigating prohibition
  - C) Demerit
  - D) Warning
- D 17 After a yacht has been inspected and measured by a competent authority, who handles the remaining paperwork?
- A) The yacht construction yard
  - B) The yacht designer
  - C) Boat inspection institute or a licensed boat technician
  - D) The shipping administration authority at the port of registry or place of registration
- C 18 The registration of yachts and the issuance of their certificates is handled by which of the following authority?
- A) The yacht's construction yard
  - B) The yacht's designer
  - C) The shipping administration authority at the port of registry or place of registration
  - D) Boat inspection institute or a licensed boat technician
- B 19 A fiberglass yacht imported for private use must be no older than how many years?
- A) Fifteen years
  - B) Twenty-five years
  - C) Thirty years
  - D) Thirty-five years
- D 20 Imported power boats and sailboats intended strictly for private use with a hull made from fiberglass must not be older than how many years?
- A) Fifteen years
  - B) Twenty-five years
  - C) Thirty years
  - D) Thirty-four years
- B 21 A fiberglass yacht imported for commercial use into the R.O.C must be no older than how many years?
- A) Five years
  - B) Ten years
  - C) Fifteen years
  - D) Twenty years
- C 22 Imported power boats intended for non-personal use with a hull made of fiber glass may not exceed how many years of age?
- A) Ten years
  - B) Fifteen years
  - C) Eighteen years
  - D) Twenty years

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- B 23 A Yacht which hull is not made of fiber glass is to be imported into Taiwan shall be no older than how many years?
- A) Fifteen years
  - B) Twenty-five years
  - C) Thirty years
  - D) Thirty-four years
- D 24 A yacht to be imported into Taiwan for it's historical and cultural importance and any other special reason should be the subject of a special inquiry and the supporting documents submitted to whom?
- A) Ministry of Culture
  - B) County and City Cultural Bureau
  - C) Museum
  - D) The marine bureau
- D 25 A 12 years old yacht imported into Taiwan and granted a "yacht Certificate "can be re-certified to operate under what category?
- A) Passenger ship
  - B) Cargo ship
  - C) Small Passenger ship
  - D) Any other certification except the 3 types listed above
- B 26 A Yacht 20 gross tonnes or less undergoes a major refit should upon completion of the refit re-apply for inspection and hand over the original registration certificate within a period of how many months?
- A) Two months
  - B) Three months
  - C) Four months
  - D) Five months
- C 27 A yacht who's certificate is found upon inspection by the "shipping authority" to have irregularities; must re-apply for registration within a period of how long?
- A) Ten days
  - B) Twenty days
  - C) One month
  - D) Two months
- B 28 A yacht that is about to undergo inspection shall not refuse to be boarded by inspectors under which following circumstances?
- A) The inspectors are not wearing a uniform
  - B) The inspectors did not present the yacht owner with an execution warrant.
  - C) The inspectors inform the yacht owner of their duties
  - D) The inspectors do not introduce himself.
- D 29 A yacht who's certificate is found upon inspection by the "shipping authority" to have irregularities must re-apply for registration. If a yacht owner fails to do so within the prescribed time limit risks which penalty?
- A) Bared from sailing
  - B) Demerit
  - C) Warning
  - D) A fine between NT\$6,000 and NT\$60,000

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- C 30 A yacht consigned to her berth by orders of the "shipping administration" may not put to sea. A yacht owner who violates the order faces which penalty?
- A) The yacht is impounded
  - B) A Demerit
  - C) A fine between NT\$6,000 and NT\$60,000
  - D) A Warning
- A 31 Which definition constitute a comprehensive yacht inspection?
- A) Special, periodical, additional and voluntary inspection
  - B) Periodical and additional inspection
  - C) Special and periodical inspection
  - D) Special and voluntary inspection
- D 32 Special inspection involves the external examination of the hull, the internal structure, and underwater appendages like the Rudder, propellers, stern tube bushings, sea-cocks and attachments. In order to carry out this special Where should the inspection the yacht take place?
- A) At the Dock
  - B) On a slip
  - C) Moored a shore
  - D) Dry dock
- D 33 Which one of the following markings are not required for private yachts undergoing special inspection?
- A) Name of the yacht
  - B) Name of the port of registry
  - C) Distinctive number
  - D) Load line mark and draft marks
- A 34 A yacht undergoing special inspection should have her deck drains inspected for adequate drainage and that the hatches when closed are what?
- A) Watertight
  - B) Airtight
  - C) Oil tight
  - D) Insulated
- B 35 A yacht undergoing special inspection for the first time or after a major refit must have sufficient stability to establish her seaworthiness. Which of the following tests should also be carried out?
- A) Hull water tightness test
  - B) Heeling test
  - C) Towing test
  - D) Jacking test
- A 36 Which gear is exempt from inspection during the special inspection involving a powered sail boat under 15 meters in length intended strictly for private use?
- A) Stern gear inspection
  - B) On board equipment inspection
  - C) Deck drainage and Water tightness inspection
  - D) Engine room ventilation inspection

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- D 37 Which requirements should be met before a yacht is permitted to Sail?
- A) The equipment meets all specifications and has passed inspection
  - B) The equipment meets specifications and the number of crew on board does not exceed the approved limit
  - C) The equipment is properly installed according to regulation
  - D) The equipment conforms to specifications and installed in accordance with the regulations and that the number of passengers on board does not exceeded the approved limit
- D 38 A yacht that did not undergo the special inspection can be fined by the shipping administration authority according to the following schedule by how much?
- A) A fine between NT\$3,000 and NT\$30,000
  - B) A fine between NT\$4,000 and NT\$40,000
  - C) A fine between NT\$5,000 and NT\$50,000
  - D) A fine between NT\$6,000 and NT\$60,000
- A 39 If the number of persons on a yacht exceeds the capacity approved by the shipping authority, the yacht should not be allowed to sail. Failure to comply with the law makes the owner liable for which punishment?
- A) A fine between NT\$15,000 and NT\$150,000
  - B) Warning
  - C) Demerit
  - D) Short-term imprisonment
- B 40 If a yacht owner / yacht master was fined twice or more within a year for not respecting the maximum allowed number of persons carried on board; the shipping administration authority can consign the yacht to her berth for how long?
- A) 3 days and one month
  - B) 7 days and one month
  - C) 10 days and one month
  - D) 15 days and one month
- D 41 If upon inspection by the authorities a yacht is found to have deficient mandatory equipment installed on board, the yacht is consigned to her berth until improvements are made within a specified deadline. Failure to comply with the improvement order may see the owner of the yacht or yacht master face which penalty?
- A) Imprisonment
  - B) Short-term imprisonment
  - C) Warning
  - D) A fine between NT\$3,000 and NT\$30,000
- C 42 If a yacht owner is sited twice for poor equipment maintenance and fails to pass the yacht inspection test; how long will the yacht be suspended?
- A) Three days to one month
  - B) Five days to one month
  - C) Seven days to one month
  - D) Ten days to one month
- B 43 Load waterline markings are mandatory on which type of yachts?
- A) Private yachts
  - B) Commercial yachts
  - C) Any yacht
  - D) Not required on any yacht

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- D 44 Under which following circumstance is a yacht exempted from the yacht special inspection?
- A) A newly built yacht or a yacht newly imported into Taiwan
  - B) The yacht underwent a refit or its classification re purposed
  - C) The special inspection certificate expired
  - D) The yacht is a certified mass production model
- A 45 A private yacht under 24 meters and with a valid special inspection certificate, shall have her yacht certificate re-issued for a period not exceeding how many years?
- A) Five years
  - B) Six year
  - C) Seven years
  - D) Unlimited
- D 46 After a private yacht under 24 meters has passed its special inspection, the shipping administration authority shall issue or renew the yacht's special inspection certificate for a validity period not exceeding how many years?
- A) Five years
  - B) Six years
  - C) Seven years
  - D) Unlimited
- C 47 A yacht owner need not apply for a gross tonnage test when applying for the special inspection certificate under which circumstance?
- A) The yacht is newly commissioned or just imported into Taiwan.
  - B) The hull was modified
  - C) The Special inspection certificate expired.
  - D) The yacht superstructure was modified.
- C 48 If The owner of a newly built yacht or imported yacht that underwent hull modifications fails to apply for a tonnage certificate and a special inspection certificate; The marine administration has the authority to do what?
- A) Consign the yacht to her dock
  - B) Issue a warning
  - C) Issue a fines between 6,000 Yuan and less than 60,000 Yuan
  - D) Issue a demerit
- C 49 A yacht shall have the following markings: Name of the vessel, the name of the port of registry, the maximum number of passengers, a load waterline and other markings as stipulated by law. If not, the marine bureau has the authority to do what?
- A) Consign the yacht to her dock
  - B) Issue a warning
  - C) Issue a fine in the amount of Less than 3,000 Yuan and not exceeding 30,000 Yuan
  - D) A prize!
- C 50 Omitting navigation in a war zone; A yacht shall have her name and the name of the port of registry, the maximum number of passengers, load line and any other markings as stipulated by the Act. The marine bureau has the authority to do what?
- A) Confine the yacht to her dock
  - B) Issue a Warning
  - C) Impose a fine ranging from 3,000 Yuan to 30,000 Yuan
  - D) Issue a demerit

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- 10600287    A    51 A yacht should have her name, her port of registry and the maximum number of passengers etc. clearly marked as stipulated by law. Any changes to those markings should be carried out at which stage of the registration process?
- A) At the same time as the registration process
  - B) 10 days after the registration process
  - C) Twenty days after the registration process
  - D) 30 days after the registration process
- 10600288    D    52 A yacht shall have the load line and any other markings clearly visible as stipulated by law. Any changes to those markings should be reported at what stage of the registration process?
- A) At the same time
  - B) 1 month from the date of occurrence.
  - C) 2 months from the date of occurrence.
  - D) 3 months from the date of occurrence.
- 10600289    A    53 A Yacht shall bear her name and port of registry, load water line when applicable and the maximum passenger carrying capacity as stipulated by law. Any changes to the above must be applied for to the marine bureau within the prescribed time limit. Failure to do so subjects the owner of the yacht to which punishment?
- A) A fine between NT\$3,000 and NT\$30,000
  - B) Suspension of navigation rights
  - C) Warning
  - D) Demerit
- B    54 Which of the following yachts can be registered without the special inspection certificate and using only the manufacturer's certificate?
- A) Yachts built over a certain production number?
  - B) Yachts manufactured by mass production methods
  - C) Yachts imported from abroad
  - D) Yachts which the intended use or type is altered

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- C 55 If a yacht has a valid special inspection certificate and before the yacht reaches its 12th anniversary; The owner shall apply to the marine bureau at the yacht home port for regular inspection. Failure to apply for a regular inspection certificate; The marine bureau has the authority to issue what punishment?  
A) Confine the yacht to her berth.  
B) Issue a Warning  
C) Impose a fine that is between 6,000 and 60,000 Yuan (NT\$)  
D) Issue a demerit
- B 56 The owner of a private yacht that is under 24 meters and with a passenger carrying capacity of less than 12 shall carry out the voluntary self administered inspection within one month prior to the expiration of the special inspection certificate which is valid for how long?  
A) One Month  
B) One year  
C) One year six months  
D) Two years
- B 57 A Private yacht under 24 meters in length with capacity for 12 passenger, which was self inspected by her master shall submit to the marine bureau at the port of registry which documents?  
A) The voluntary inspection form  
B) The voluntary inspection form together with the yacht registration certificate  
C) The voluntary inspection form together with the inspector's qualifications  
D) The voluntary inspection form together with yacht regular inspection
- C 58 A private yacht under 24 meters in length, with a passenger carrying capacity of 12 and registered 12 years past, shall implement voluntary self inspection and report to the marine bureau at the yacht's port of registry. Failure to do so the marine bureau has the authority to issue which punishment?  
A) A sailing ban  
B) A warning  
C) A fine between NT\$3,000 and NT\$30,000  
D) A demerit

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- D 59 Under what circumstances a yacht owner is exempt from reporting damage and or accidents to the marine bureau?
- A) Shipwreck
  - B) Equipment failure that may have consequences for navigation, safety of life or environmental pollution
  - C) Concerns about the Seaworthiness of the yacht
  - D) Air conditioning system failure
- C 60 If a yacht is involved in a wreck that causes damage to either the hull and or equipment that may impact it's seaworthiness or cause environmental pollution; The yacht must resubmit to the special inspection involving which items?
- A) Items that fall under the special inspection schedule
  - B) Items that fall under the regularly inspection schedule
  - C) Items that have been repaired or replaced
  - D) Items identified by the marine bureau
- C 61 If the owner of yacht is fined by the marine bureau twice or more within one year due to a shipwreck that may impact it's seaworthiness or cause environmental damage; The owner shall be bared from applying for a provisional inspection together with sailing for how long?
- A) 3 days and one months
  - B) 5 days and one months
  - C) 7 days and one months
  - D) 10 days and one months
- A 62 A yacht 20 gross tonnes or more must apply for a certificate of registry from the marine bureau after obtaining the special inspection certificate within how many months?
- A) Three months
  - B) Four months
  - C) Five months
  - D) Six months
- C 63 A yacht 20 gross tonnes or more that has just obtained her first special inspection certificate must apply for a registration certificate from the marine bureau within a 3 months period. If the yacht owner fails to apply for the certificate, the marine bureau has the authority to do what?
- A) Consign the yacht to her dock
  - B) Issue a warning
  - C) Issue a fine between NT\$6,000 and NT\$60,000
  - D) Issue a demerit
- A 64 A yacht that has just obtained her first special inspection certificate, must apply for a registration certificate from the marine bureau within a period of how many months?
- A) Three months
  - B) Four months
  - C) Five months
  - D) Six months

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- C 65 A yacht 20 gross tonnes or less that just obtained her first special inspection certificate must apply for a registration certificate from the marine bureau within 3 months. Failure to comply with the law within the prescribed time limit, the marine bureau has the authority to issue what penalty?
- A) A consigning order
  - B) A warning
  - C) A fine between NT\$6,000 and NT\$60,000
  - D) A Demerit
- B 66 A registered yacht that is irreparably wrecked, sinks or is reported missing for more than 6 months, or changes nationality; The Yacht owner shall apply for a cancellation of the yacht's registration certificate upon the occurrence and or discovery of the facts within a period of how many months?
- A) Three months
  - B) Four months
  - C) Five months
  - D) Six months
- C 66 A registered yacht that is irreparably wrecked, lost at sea or is reported missing for more than 6 months, changes (or loses) its R.O.C. nationality; The Yacht owner shall apply for a cancellation of the yacht's registration certificate within Four months from the date of occurrence and or discovery of the facts. What penalty shall the marine bureau impose on the Yacht owner in case of non compliance with the act?
- A) Consign the vessel to her dock
  - B) Issue a warning
  - C) Issue a fine between NT\$6,000 and NT\$60,000
  - D) Issue a Demerit
- C 67 A registered yacht that is ship wrecked irreparably, reported missing for 6 months, or loses / changes its R.O.C nationality; the yacht owner shall apply for cancellation of the yacht's certificate and the certificate of registration to the marine bureau at the yacht's registered home port. Failure to apply for the withdrawal of both certificates, the marine bureau has the authority to issue which penalty?
- A) Consign the yacht to her dock
  - B) Issue a warning
  - C) Issue a fine between NT\$6,000 and NT\$60,000
  - D) Issue a demerit
- C 68 A registered yacht that is ship wrecked irreparably, reported missing for 6 months, or loses / changes its R.O.C nationality; how should the yacht owner handle the cancellation of the yacht certificate and registration certificate of the vessel?
- A) Frame then a memento pieces
  - B) Have the marine bureau punch a hole in the certificates
  - C) Apply to the marine bureau for cancellation of the certificates
  - D) Dispose of the photocopied certificates

## 1 Maritime Regulations

### 1 2 Ship Inspection, etc.

- A 69 The yacht master of a registered yacht that is irreparably wrecked, lost at sea, is reported missing for more than 6 months, changes (or loses) its R.O.C. nationality; May be asked by the marine bureau to complete the cancellation of the yacht certificate and together with the registration certificate within one month. In case of non compliance with the request; the marine bureau has the authority to do what?
- A) Withdraw and cancel the Yacht certificate and Certificate of Registration.
  - B) Issue a fine between NT\$6,000 and NT\$60,000
  - C) Issue a warning
  - D) Issue a Demerit
- A 70 Which law or what penalty may apply to the master of a power driven yacht while drunk at the helm?
- A) The same criminal law that apply to drunk driving
  - B) Suspension of the captain's license in accordance with Seafarer's Act.
  - C) Imposition of a fine in accordance with the Seafarer's act
  - D) There are currently no penalties for driving while drunk at the helm of
- B 71 Consider the following two statements and determine which statement is correct with respect to a vessel regardless of its size or purpose when entering or leaving a commercial port? (a) The vessel's owner or his/her agent shall report to the marine bureau within twelve hours before the vessels arrival into port.(b) The vessels' owner or his/her agent shall report to the marine bureau within Twelve hours before the ship's departure from the port.
- A) Statement (a) is correct
  - B) Statement (b) is correct
  - C) Both statements are correct
  - D) Neither statement are correct
- C 72 Which administration is in charge of inspecting small vessels including yachts entering or leaving fishing ports and marinas?
- A) Vessels leaving or entering a fishing port are inspected by the fishery agency, while vessels entering or leaving marinas are inspected by the tourism bureau
  - B) Vessels leaving or entering any port facility are inspected by the Maritime Port Bureau's
  - C) Vessels leaving or entering any port facility are inspected by the coast guards
  - D) Vessels leaving or entering any port facility are inspected by the County / city Government
- A 73 A small vessel about to leave from a fishing port, shall first pay fees due prior to applying to the coast guard administration for departure. To which authority should the port fees be paid to?
- A) Port administrative agency
  - B) Coast guard administration
  - C) County /City government
  - D) Fisheries Agency

## **1 Maritime Regulations**

### **1 2 Ship Inspection, etc.**

- C 74 Which of the following statements is correct with regards to small vessels entering or leaving a fishing harbor?
- A) Give a 12 hours advance notice before departure or arrival
  - B) Give advance notice Within six hours before arrival and twelve hours before departure
  - C) There is no provision for an advance notice in the Fishing Port Act.
  - D) Report arrival after entering the port and report departure after leaving the port

## 1 Maritime Regulations

### 1 3 Pollution, Smuggling, Drugs, etc.

- B 1 For yacht activities that do not involve entry/exit of the border, relevant information about the vessel, the voyage and the persons on board shall be reported by means of e-mail, fax or in person to whom?
- A) The Port Authority
  - B) The coast guards
  - C) The police
  - D) The Military Police
- B 2 The yacht captain and assistant must not use the yacht to smuggle cargo. If the smuggled cargo includes contraband, is likely to cause damage to the yacht or on board personnel, what is the owner or the captain entitled to do to said cargo?
- A) Confiscate the cargo
  - B) Jettison the cargo
  - C) Burn the cargo
  - D) Deliver to sea patrol personnel at the port
- C 3 The yacht master or his crew are not allowed to bring on board the vessel articles like weapons, explosives or other dangerous goods. Breaching the law entitles the owner or master to do what?
- A) Confiscate the articles
  - B) Incinerate the articles
  - C) Jettison the articles
  - D) Handover the articles to the authorities
- A 4 The seafarer's act stipulates that; A yacht master and his crew shall not use the ship to smuggle contraband. A yacht master and his crew are prohibited from carrying articles like weapons, ammunition, explosives or some other dangerous items that may cause harm to the vessel or her crew. The seafarer's act allows the yacht master or the owner to dispose of the offending articles in what manner?
- A) Jettison the articles overboard in an area that would cause minimum pollution to the sea.
  - B) Jettison the articles in a manner that would cause the least damage to the vessel.
  - C) Jettison the articles in a place that would cause the least damage to the port
  - D) Hand over the articles to the coast guard

- C 5 A person convicted under the firearm and ammunition control act or the drug prevention and control act or the smuggling control act is prohibited from becoming a yacht master when the prison sentence exceeds how many months?
- A) One month
  - B) Three months
  - C) Six months
  - D) Nine months
- A 6 The penalty for a yacht master with an expired license while in command of a vessel is what?
- A) Warning
  - B) Demerit
  - C) Demotion
  - D) License revocation
- B 7 A yacht master who contravenes the seafarer's act is issued warnings and demerits. How many warnings will result in one demerit?
- A) Two
  - B) Three
  - C) Four
  - D) Five
- B 8 A yacht master who contravenes the seafarer's act is issued a demerit. How many demerits issued within a period of two years would it take before the yacht master's license is suspended for three months?
- A) Two demerits
  - B) Three demerits
  - C) Four demerits
  - D) Five demerits
- C 9 Under the Seafarer's act, A yacht master who fails to take appropriate safety measures during an emergency that may result in the loss of life, the ship or both will have his license revoked for a period extending for how long?
- A) One month and up to three years
  - B) Two months and up to four years
  - C) Three months and up to five years
  - D) Four months and up to six years
- C 10 The master of a yacht whose vessel is in imminent danger as a result of an accident shall immediately ask for assistance and take appropriate action to safeguard his yacht and crew. The yacht master is also under the legal obligation to prevent oil spills. If found negligent; The yacht master's license shall be suspended for how long?
- A) One month or more up to three years
  - B) Two months or more up to four years
  - C) Three months or more up to five years
  - D) Four months or more up to six years

## 1 Maritime Regulations

### 1 3 Pollution, Smuggling, Drugs, etc.

- B 11 The Master of a yacht whose vessel is in eminent danger Shall endeavor to adopt any necessary measure to save human lives as well as his vessel. If a casualty arises or that navigation is hindered as a result; The yacht master shall have his license suspended for how long?
- A) Two months and up to four years
  - B) There months and up to five years
  - C) Four months and up to six years
  - D) Five months and up to seven years
- C 12 Notwithstanding the risks involved in the navigation of a yacht, the skipper shall have the final say as to the abandonment of the vessel, but shall not do so without the advice of a knowledgeable member of the crew. If the rule is violated and causes personal injury, loss of life or disturbs navigational safety, the skipper shall have his license suspended for how long?
- A) One month or more up to three years
  - B) Two months or more up to four years
  - C) Three months or more up to five years
  - D) Four months or more up to six years
- B 13 The master of yachts who's vessel is involved in collision with another ship is bound, so far as he can do so without seriously endangering his yacht, crew or guests on board, to render assistance to the other vessel and all persons on board. The Yacht master is liable for any casualty arising from withholding assistance to the other vessel. If proven negligent; The yacht master's license shall be suspended for how long?
- A) Two months or more up to four years
  - B) There months or more up to five years
  - C) Four months or more up to six years
  - D) Five months or more up to seven years
- B 14 After a collision and unless a force majeure exists, A yacht master is bound to stand by the stricken vessel and render assistance until it is clear that further assistance is no longer meaningful. A yacht master that is found negligent of this rule, shall have his license suspended for how long?
- A) Two months or more up to four years
  - B) There months or more up to five years
  - C) Four months or more up to six years
  - D) Five months or more up to seven years
- C 15 A yacht master whose vessel is involved in a vessel to vessel collision is obligated to make known to the master of the other vessel the name of his yacht, his port of registry, the name of the port she departed from and the port she is bound for. If found negligent; The yacht master shall have his license suspended for how long?
- A) One month or more up to three years
  - B) Two months or more up to four years
  - C) Three months or more up to five years
  - D) Four months or more up to six years

## 1 Maritime Regulations

### 1 3 Pollution, Smuggling, Drugs, etc.

- B 16 Every master is bound, so far as he can do so without serious danger to his yacht, crews and passengers thereon, to render assistance to any persons in danger of being lost at sea (MOB). Failure to do so which may result in a casualty or hinder navigation is punishable by law. If proven negligent; The yacht master's license shall be suspended for a how long?
- A) Two months or more up to four years
  - B) Three months or more up to five years
  - C) Four months or more up to six years
  - D) Five months or more up to seven year
- C 17 A yacht master who disturbs safety of navigation, engages in illicit activities like smuggling firearms, ammunition, drugs or stowaways; If found guilty; The yacht master's license shall be suspended for how long?
- A) One month or more and up to three years
  - B) Two months or more and up to four years
  - C) Three months or more and up to five years
  - D) Four months or more and up to six years
- A 18 A yacht master shall not be in command of a vessel unless he has passed the periodical physical examination. Failure to comply with the law is punishable with what?
- A) A fine of NT\$6,000 or more and up to NT\$30,000
  - B) Detention
  - C) Warning
  - D) All of the above
- B 19 Instructing others to skipper a yacht without a yacht master's license is punishable with what?
- A) Short-term imprisonment
  - B) A fine of NT\$6,000 or more up to NT\$30,000
  - C) Warning
  - D) None of the above
- C 20 What penalty shall be imposed on a yacht master's who is in command of a vessel that is not within the yacht classification for which his master's license was awarded?
- A) short-term imprisonment
  - B) Warning
  - C) A fine of NT\$6,000 or more up to NT\$30,000
  - D) None of the above
- A 21 A person who is learning to skipper a yacht may not do so unless properly supervised by a licensed yacht master. Failure to comply with the law will be censured on the spot and is punishable with what?
- A) A fine of NT\$6,000 or more up to NT\$30,000
  - B) Short-term imprisonment
  - C) Warning
  - D) None of the above
- C 22 A yacht owner who's vessel sets sail without the mandated crew on board will be censured on the spot and which offence is punishable by what?
- A) A short-term imprisonment
  - B) A warning
  - C) A fine of NT\$8,000 or more up to NT\$40,000
  - D) None of the above

## 1 Maritime Regulations

### 1 3 Pollution, Smuggling, Drugs, etc.

- A 23 A yacht owner who put to sea without the mandated crew, shall be sanctioned and issued an improvement order and the yacht consigned to her dock for how long?
- A) 30 days
  - B) 40 days
  - C) 50 days
  - D) 60 days
- D 24 A yacht owner who commits the violation of sailing without the mandated crew on board for more than three times within one year shall have his or her yacht consigned to her dock for how long?
- A) Three months or less
  - B) Four months or less
  - C) Five months or less
  - D) Six months or less
- A 25 Which of the following penalty is imposed on a yacht master found guilty of transporting Category one narcotics in accordance with Narcotics hazard Prevention Act?
- A) A death sentence or life imprisonment
  - B) A minimum seven-year fixed-term imprisonment
  - C) A minimum six-year fixed-term imprisonment
  - D) A minimum five-year fixed-term imprisonment
- A 26 A yacht master found guilty of transporting category one narcotics in accordance with the narcotic hazard act is punishable by a death sentence or life imprisonment and a fine up to what amount?
- A) NT\$ 20 millions
  - B) NT\$ 30 millions
  - C) NT\$ 40 millions
  - D) NT\$ 50 millions
- B 27 in accordance with Narcotics Hazard Prevention Act, which of the following penalty is imposed on a yacht master for transporting category two narcotics?
- A) A death sentence or life imprisonment
  - B) A minimum seven-year fixed-term imprisonment
  - C) A minimum five-year fixed-term imprisonment
  - D) A minimum three-year fixed-term imprisonment
- B 28 A yacht master found guilty of transporting, Category two narcotics is subject to life imprisonment or a minimum seven-year fixed-term imprisonment, and may also be subject to what size fine?
- A) 20 millions
  - B) 10 millions
  - C) 7 millions
  - D) 3 millions
- B 29 A yacht master found guilty of transporting, Category three narcotics faces which penalty?
- A) Life imprisonment
  - B) A minimum seven-year fixed-term imprisonment and a fine of no more than NT\$ seven million
  - C) A minimum seven-year fixed-term imprisonment without a fine.
  - D) Only fine

## 1 Maritime Regulations

### 1 3 Pollution, Smuggling, Drugs, etc.

- C 30 A yacht master found guilty of transporting Category four narcotics under the Narcotics Hazard Prevention Act is punishable by?
- A) A minimum three-year to a maximum eight year fixed-term imprisonment without a fine
  - B) A minimum four-year to a maximum ten year fixed-term imprisonment without a fine
  - C) A minimum five-year to a maximum twelve year fixed-term imprisonment and a fine of no more than NT\$ three millions
  - D) A minimum six-year to a maximum fifteen year fixed-term imprisonment without a fine
- C 31 in accordance with Narcotics Hazard Prevention Act; Which of the following penalties are imposed on yacht masters for transporting narcotics manufacturing equipment or for committing narcotics related offences?
- A) A fine of one million NT\$
  - B) A minimum one-year to a maximum seven year fixed-term imprisonment without a fine
  - C) A minimum one-year to a maximum seven year fixed-term imprisonment and a fine of one million NT\$
  - D) No penalty
- D 32 A Yacht master who uses his yacht to transport narcotics manufacturing equipment or for using narcotics in contravention of the Narcotics Hazard Prevention Act shall have his yacht?
- A) Impounded for one year
  - B) Impounded for five years
  - C) Impounded for ten years
  - D) Confiscated
- D 33 What type of firearms is a yacht master allowed to carry on board his vessel when granted permission by the relevant national authority?
- A) Sub machine guns
  - B) Machine guns
  - C) Shoulder arms
  - D) Pistols, air guns, shotguns and other guns
- A 34 A yacht master who transports without approval cannons, shoulder arms, machine guns, sub machine guns, carbines, automatic rifles, rifles, traditional carbines, pistols, or various types of artillery shells, bombs and explosives is punishable by?
- A) Life imprisonment, or imprisonment of no less than 7 years and a fine of up to NT\$30 million.
  - B) Life imprisonment or imprisonment of no less than 7 years without a fine
  - C) The death sentence
  - D) The death sentence commuted to life imprisonment
- A 35 A yacht master who transports without approval pen guns, gas guns, tranquilizer guns, shotguns, air guns, or any other firing devices that can shoot metal object or bullets with lethal force is punishable by?
- A) Life imprisonment, or imprisonment of no less than 5 years as well as a fine of up to NT\$ 10 million.
  - B) Life imprisonment or imprisonment of no less than 5 years without a fine
  - C) A death sentence
  - D) A death sentence or life imprisonment

## **1 Maritime Regulations**

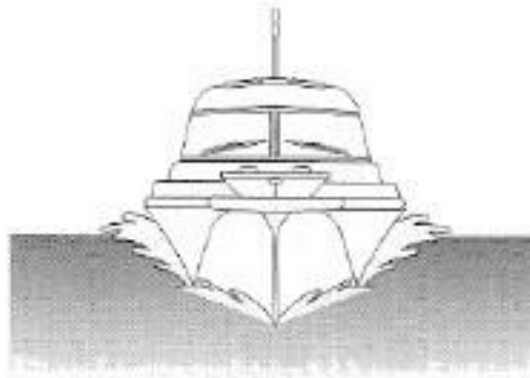
### **1 3 Pollution, Smuggling, Drugs, etc.**

- A 36 yacht master who transport bullets without approval is punishable by?
  - A) Imprisonment of no less than 1 year, no more than 7 years as well as a fine of up to NT\$5 million.
  - B) Imprisonment of no less than 1 year and no more than 7 years without a fine
  - C) A death sentence
  - D) A death sentence or life imprisonment
  
- B 37 A yacht master who transports major firearm components and ammunition without approval is punishable by?
  - A) Imprisonment of no less than 3 year and no more than 10 years without a fine
  - B) Imprisonment of no less than 3 year and no more than 10 years as well as a fine of up to NT\$7 million.
  - C) A death sentence
  - D) A death sentence or life imprisonment
  
- A 38 A yacht master who transports knives without prior approval by the authorities is punishable by?
  - A) Imprisonment of up to 3 years as well as a fine of up to NT\$1 million.
  - B) Imprisonment of up to 3 years without a fine
  - C) A death sentence
  - D) A death sentence or life imprisonment

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- B 1 Two powered vessels are on a reciprocal course so that the oncoming vessel (B) appears to vessel (A) just like in the figure below. What action should vessel (A) undertake in order to avoid what appears like a heads on collision?
- A) Alter course by turning sharply to port and signal with her whistle a port turn
  - B) Alter course to pass on the port side of the on coming vessel (B)?
  - C) Alter course sharply to starboard and blast the whistle to attract Vessel's (B) attention?
  - D) Maintain heading and speed and watch vessel (B) take evasive action?

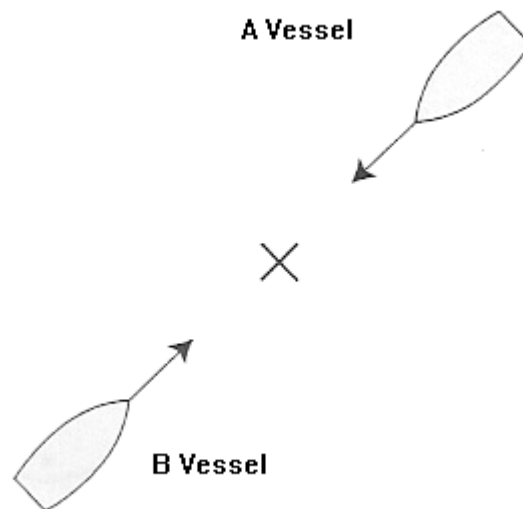


- C 2 Two powered vessels are on a head's on collision course. What action should both vessel undertake in order to avoid the head's on collision?
- A) Maintain speed and heading
  - B) Alter course to port
  - C) Alter course to starboard?
  - D) Reduce Speed?

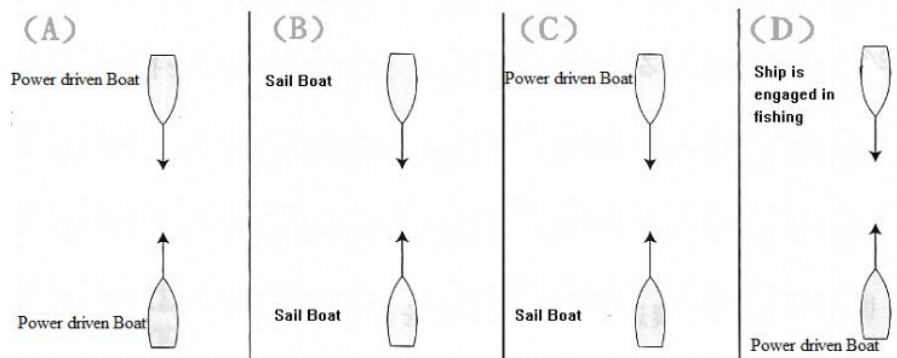
## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- C 3 Two vessels (A) & (B) are on a collision course at point X as show in the attached figure. What actions should the vessels undertake to pass each other safely?
- A) vessel (A) alters course to starboard while vessel (B) maintains speed and heading  
 B) Vessel (B) alters course to starboard while vessel (A) maintains speed and heading  
 C) Both the (A) and (B) vessels alter course to starboard  
 D) Both the (A) and (B) vessels alter course to port



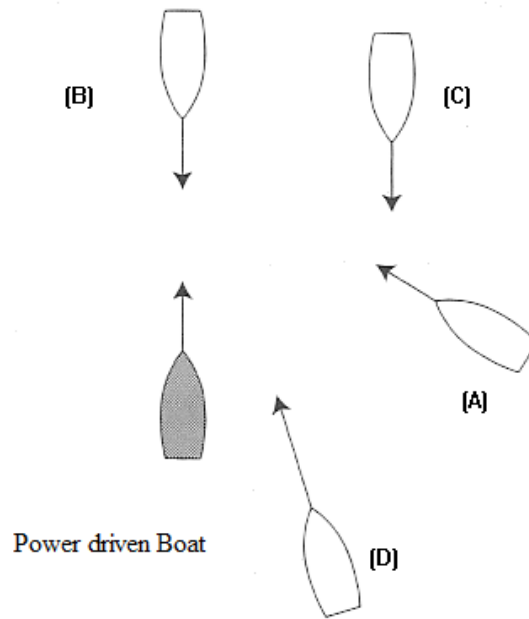
- A 4 Which figure fulfills the requirements of COLREG Rule 14 that states “two vessels on a reciprocal course involving the risk of a collision, shall alter their courses to starboard so that each shall pass on the port side of the other”?
- A) Figure (A)  
 B) Figure (B)  
 C) Figure (C)  
 D) Figure (D)



## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- D 5 Consider the four vessels position in relation to your own vessel and indicate which answer best represent the following situations; vessel on a reciprocal course, vessel overtaking you, vessel crossing you and vessel passing you? choose your answer in the correct order accordingly:
- A) (C) / (D) / (A) / (B)  
 B) (B) / (A) / (D) / (C)  
 C) (C) / (A) / (B) / (D)  
 D) (B) / (D) / (A) / (C)

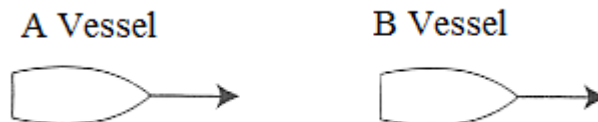


- B 6 Consider the following conditions which presents the risk of a collision and determine the wrong course of action to take?
- A) When two vessels are on a reciprocal course, Each vessel must pass on the port side of the incoming vessel by altering course to starboard.  
 B) The course of the oncoming vessel cannot be determined and therefore it is not necessary to alter course.  
 C) The vessel on the reciprocal course is engaged in fishing and therefore the oncoming vessel should steer clear of the fishing vessel so that the fishing vessel could maintain its speed and heading  
 D) The sidelights (Port and starboard) of both vessels are clearly visible judging that both vessels are on a reciprocal course.

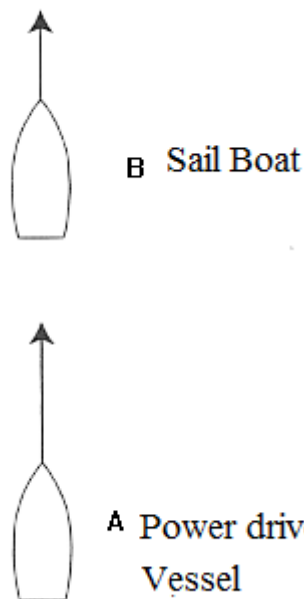
## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- C 7 Consider the diagram below representing vessel (A) overtaking vessel (B). Determine which is the appropriate course of action?
- A) Vessel (B) should alter course to port and stop.
  - B) Vessel (B) should turn wide to port to get out of Vessel (A)'s route
  - C) Vessel (B) should keep a watch on Vessel (A) while maintaining its course and speed
  - D) Vessel (B) should maintain its course and decelerate to allow ship (A) to pass.



- C 8 Consider the following diagram illustrating (vessel A) chasing (vessel B). Determine the correct course of action by selecting one of the following answers?
- A) Vessel (B) shall turn to the opposing side of pursuing vessel (A)
  - B) Vessel (A) shall alter course and decelerate as early as possible
  - C) vessel (A) shall alter course while maintaining speed.
  - D) vessel (A) shall slow down

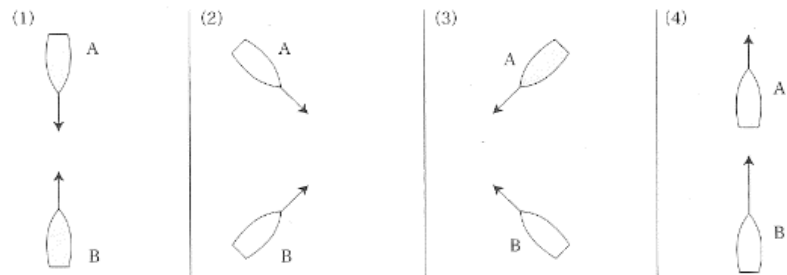


## 2 Collision Avoidance Rule

### 2 1 Various Navigation

D 9 Consider the following diagram and indicate on which figure vessel B is the give away vessel?

- A) Figure (1)
- B) Figure (2)
- C) Figure (3)
- D) Figure (4)



C 10 Which of the following answers is incorrect?

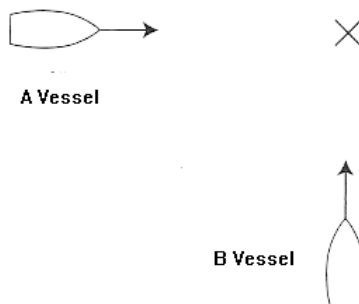
- A) An overtaking vessel should not interfere with the course of the overtaken vessel.
- B) A vessel being overtaken shall maintain its course and speed.
- C) A vessel shall assume he is overtaking judging from the light of the overtaken vessel.
- D) A vessel in doubt of overtaking another vessel shall assume that it is doing so.

A 11 Which definition is incorrect when describing a vessel in an overtaking situation?

- A) The vessel i meeting the oncoming vessel beam on
- B) The side lights of the vessel being overtaken are not visible
- C) The stern light of the vessel being overtaken is visible
- D) The overtaking vessel is in doubt as to whether its overtaking the vessel ahead.

B 12 Consider the diagram below representing to power driven vessels intersecting at X. What course of action should either vessels undertaking in order to avoid colliding?

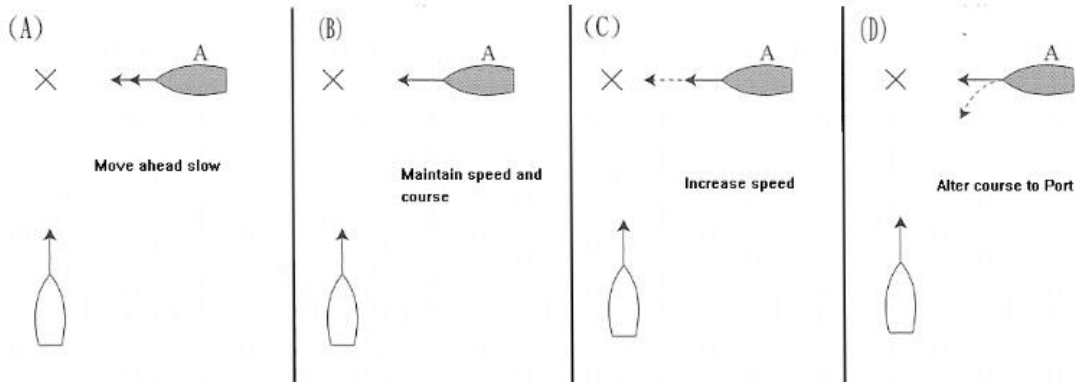
- A) Vessel (A) shall maintain its heading and speed while vessel (B) should stay out of the way of vessel (A)?
- B) Vessel (B) shall maintain its heading and speed while vessel (A) should stay out of the way of vessel (B)
- C) Both vessels should alter course to port at the same time to stay clear of each other
- D) Vessel (A) should increase speed so it can cross ahead of vessel (B)?



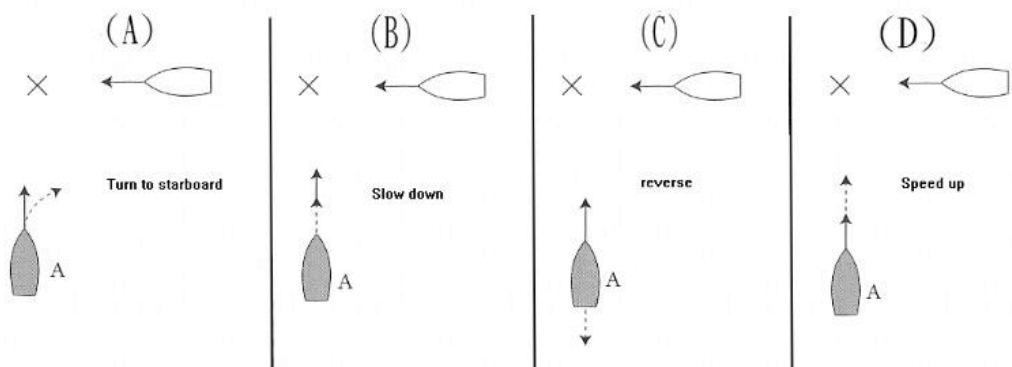
## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- C 13 When two power-driven vessels are in a crossing situation. The vessel approaching from which side is the stand on vessel?  
 A) Upwind side  
 B) Downwind side  
 C) Starboard side  
 D) Port side
- B 14 The following illustration shows two power driven vessels crossing with a danger of collision at X. Vessel A can follow either of the 4 following maneuvers. Which maneuver is the correct one?  
 A) Move ahead slow  
 B) Maintain speed and course  
 C) Increase speed  
 D) Alter course to Port



- D 15 Consider the following diagram involving two power driven vessels crossing at X: Which maneuver undertaken by vessel (A) is the most inappropriate?  
 A) Figure (A) turn to starboard  
 B) Figure (B) Slow down  
 C) Figure (C) Reverse  
 D) Figure (D) Speed up



## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- D 16 What is correct course of action to take when crossing another vessel?
- A) Get as close as possible to the other vessel before taking action?
  - B) Reduce speed as little as possible.
  - C) Alter course as little as possible
  - D) Maintain safe distance from the other vessel to allow safe passage.
- A 17 Determine which action is incorrect during a crossing situation?
- A) Let the vessel approach as close as possible before taking evasive action at the last moment?
  - B) Alter speed and course decisively as to leave the other vessel in no doubt of your action?
  - C) Maintain safe distance to allow the other vessel to pass
  - D) Endeavor to Leave as much distance between you and the other
- C 18 Which maneuver should be avoided when two power driven vessels are on a reciprocal or near reciprocal course involving the risk of a collision?
- A) Both vessels determine that there is a risk of a collision with each vessel having the responsibility to act.
  - B) Sound the danger signal which consists of 5 short blast meaning " your intentions are not clear"
  - C) The give away vessel alters course to port
  - D) When one of the vessel deems the situation to involve the risk of
- B 19 which action is inconsistent between two power driven vessels set on a collision course?
- A) The give away vessel must alter course in a significant manner as soon as she determines that a risk of a collision exist.
  - B) The give away vessel should wait for the stand on vessel to reduce speed or stop
  - C) When in doubt about the give away vessel's action; The stand on vessel should immediately and repeatedly blast her horn in short successions?
  - D) When two power-driven vessels are on a reciprocal course; each vessel
- C 20 The following two statements relate to the conduct of two vessels in sight of one another. Determine whether the statements are correct?
- Statement (a) Vessels in sight of one another must alter speed and course in a way that leaves no doubt about their intention. Statement (b) When in doubt about the giveaway vessel's action the stand on vessel should blast its horn 5 times.
- A) Only (a) is correct
  - B) Only (b) is correct
  - C) Both are correct
  - D) Both are incorrect

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- A 21 Consider the following diagram where vessel(A) is a fishing vessel in operation and vessel (B) a power driven vessel crossing at X. Which of the following course of action is correct?
- A) Fishing vessel (A) is the stand on vessel and power driven vessel (B) is the giveaway vessel
  - B) Power driven Vessel (B) should maintain speed and heading and fishing vessel (A) should alter course
  - C) Fishing Vessel (A) should temporarily stop operation
  - D) Power driven Vessel (B) shall speed up and cross in front of the bow of the fishing vessel (A)



**B** Power driven vessel



**A** Vessel engaged in fishing

- B 22 Consider the following diagram of two vessels crossing at X where vessel(A) is a power driven vessel and vessel (B) is a vessel restricted in her ability to maneuver. Determine which course of action for avoid a collision is correct?
- A) Vessel (B) should avoid interfering with vessel (A)'s route.
  - B) Vessel (A) should avoid vessel (B)'s route
  - C) Both vessels should alter course to starboard
  - D) Vessel (A) should cross ahead of vessel (B)



**A** power driven vessel

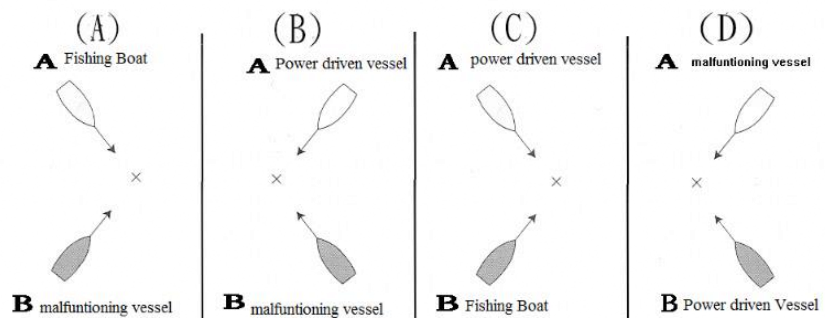


**B** Malfunctioning Vessel

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- D 23 Consider the illustration below shows two vessel crossing at X. In which situation vessel (B) becomes the giveaway vessel?
- A) Figure (A) Vessel(A) is a fishing boat and vessel(B) is a vessel restricted in her ability to maneuver
- B) Figure (B) Vessel(A) is a power driven vessel and vessel(B) is a vessel restricted in her ability to maneuver.
- C) Figure (C) Vessel(A) is a power driven vessel and vessel(B) is a fishing vessel
- D) Figure (D) Vessel(A) is a vessel restricted in her ability to maneuver and vessel(B) is a power driven vessel.

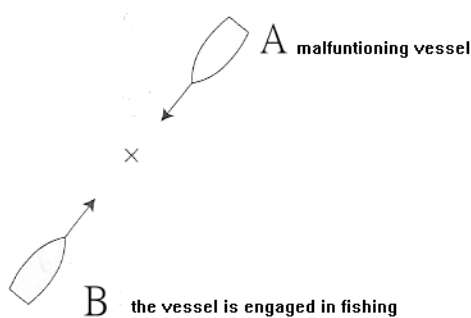


- C 24 Which rule or statement below violates the responsibility between vessels when insight of one another?
- A) Give way vessel is fishing vessel engaged in fishing and the stand on vessel is a vessel restricted in her ability to maneuver.
- B) The giveaway vessel is a sailboat; the stand on vessel is restricted in her ability to maneuver
- C) The stand on Vessel is a fishing vessel and the giveaway vessel is restricted in her ability to maneuver
- D) The giveaway vessel is a sailboats and the stand on vessels is restricted in her ability to maneuver.
- C 25 Consider that (a) is sailing vessel and (b) is a vessel restricted in her ability to maneuver and (c) is a fishing boat in operation. in what order the priority should be given to the stand on vessel?
- A) (a) → (b) → (c)
- B) (b) → (a) → (c)
- C) (b) → (c) → (a)
- D) (c) → (a) → (b)

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- A 26 The diagram below shows two power driven vessels meeting on a reciprocal course involving the risk of collision at point X. Vessel (A) is a vessel not under command and vessel (B) is a fishing vessel engaged in fishing in operation. What action should be taken to prevent the two vessels from colliding?
- A) Fishing vessel (B) is the giveaway vessel and should get out of the way of vessel(A)
  - B) Vessel (A) is the giveaway vessel and should get out of the way of Vessel (B)
  - C) Both vessels should alter course to Starboard as soon as they are in sight of one another
  - D) Vessel (B) shall stop to let vessel (A) find its way around?



- D 27 According to the rules of collision avoidance at sea, a vessel shall maintain a proper lookout by sight, sound and other available means appropriate for the prevailing circumstances. Which of the following statement is inconsistent with the rules?
- A) The position of the lookout has to be re-assigned to cover the ship's blind spot
  - B) A lookout for other vessels has to be maintained whether at anchor or under way.
  - C) A look out has to be maintained at all times and as is appropriate
  - D) To make up for poor visibility at night; a radar look out is sufficient.
- A 28 According to the rules of collision avoidance at sea, what is the correct definition for "safe speed"?
- A) Speed of the ship to avoid collision
  - B) The speed set at half of the ship's speed capability
  - C) Speed through the water below 12 knots
  - D) A ship speed that is the lowest of any ship in the vicinity.
- C 29 According to the rules of maritime collision avoidance, when deciding on a ship's safe speed, what should be specifically considered by the ship's master?
- A) Scheduled return time
  - B) Remaining fuel
  - C) Traffic congestion
  - D) Number of people on board

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- A 30 According to the rules; The risk of a collision is deemed to exist when there is no significant change in the approaching vessel's what?
- A) Compass bearing
  - B) Heading
  - C) Ship speed
  - D) Distance
- C 31 Although there is a significant change in the compass bearing of an approaching vessel, it should be considered that the risk of a collision still exists when the approaching vessel is what?
- A) A vessel engaged in fishing operations
  - B) A Sailboat
  - C) A vessel engaged in towing operations
  - D) A vessel engaged in dredging work
- C 32 According to the rules for the prevention of collision at sea; When determining the safe speed of a vessel, which consideration is not specified by the rules?
- A) Sea state and wind
  - B) The proximity of navigational hazards
  - C) Distance from the destination port
  - D) Own ship handling performance
- C 33 When two vessels are in sight of each other and the risk of a collision cannot be evaluated with certainty; Which assumption should be made when such a circumstance is met?
- A) The vessel is a stand on vessel
  - B) The vessel is a give away vessel
  - C) Both vessels are on a collision course
  - D) The vessels are not on a collision course
- D 34 Which condition cannot be regarded as low visibility when judging the course of an oncoming vessel?
- A) Heavy Northwest Rain
  - B) Sandstorm
  - C) Haze
  - D) Night darkness
- B 35 What measures should be taken on board a vessel operating in heavy fog or limited visibility?
- A) The ability to report the vessel's position?
  - B) The ability of the vessel to promptly take a collision avoidance action
  - C) Alter course to starboard
  - D) Alter course to port
- D 36 A vessel operating in low visibility detects on its radar a target that is judged to be a power driven vessel approaching at a close range. Which course of action is incorrect?
- A) Reverse power
  - B) Come to a stop
  - C) Alter course to starboard
  - D) Alter course to port

## 2 Collision Avoidance Rule

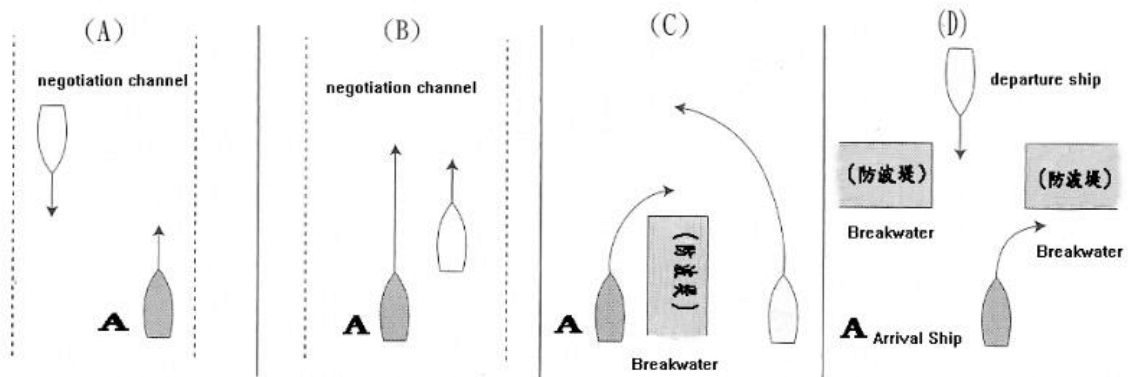
### 2 1 Various Navigation

- C 37 Which statement is inconsistent with the rules for operating a vessel in a narrow waterways?
- A) Under the rules preventing collision at sea a "narrow waterway" also means "fairway"
  - B) A sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.
  - C) Sailing vessels in narrow waterways are not required to follow the rules of collision avoidance at sea,
  - D) Vessels nearing a narrow channel or fairway where other vessels may be obscured by an obstruction shall navigate with alertness and caution
- A 38 A power driven vessel intending to overtake another power driven vessel in a narrow channel or fairway can only do so when the vessel be overtaken permits safe passing. What signals shall the overtaking vessel use to signal her intent?
- A) The overtaking vessel shall Sound the appropriate signal under the rules
  - B) The overtaking vessel shall flash her lights 5 times in rapid succession
  - C) The overtaking vessel shall get close and wait for the opportunity to pass
  - D) The overtaking vessel shall speed up and overtake on her port side?
- A 39 Under the rules a vessel shall be not impede the passage of another vessel which can safely navigate only within a narrow channel or fairway when the length of the vessel is?
- A) A power driven 15 meters in length
  - B) A power driven 25 meters in length
  - C) A power driven 35 meters in length
  - D) A power driven 45 meters in length
- D 40 According to the rules for the prevention of collision in a narrow waterway or fairway and as far as circumstances will permit. A vessel shall avoid what?
- A) Fishing
  - B) Overtaking
  - C) Crossing
  - D) Anchoring

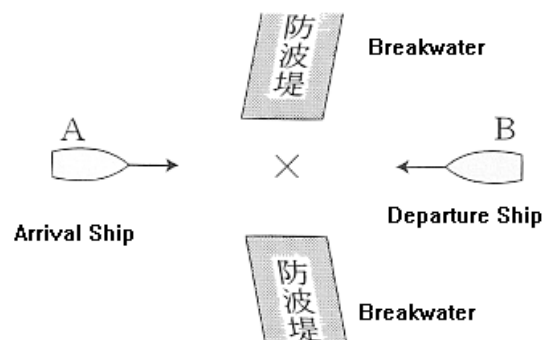
## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- B 41 The figure below illustrates a vessel (Vessel A) negotiating a narrow channel. Which action taken by vessel (A) is incorrect?
- A) Figure (A) vessel (A) is keeping to starboard at the limit of the channel entrance
- B) Figure (B) Vessel (A) is overtaking another vessel on her starboard side
- C) Figure (C) Vessel (A) is rounding an obstruction on her starboard side
- D) Figure (D) Vessel (A) is rounding an obstruction on her starboard side



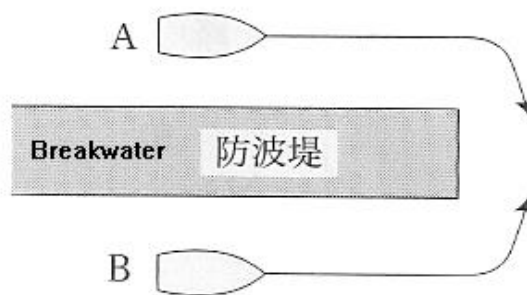
- C 42 Two power driven vessels one entering vessel (A) and one vessel exiting vessel (B) the harbor breakwater. Both vessel will meet at X. What action should each vessel take in order to prevent colliding?
- A) Both vessels assume that they have the right of way
- B) Both vessels shall pass on the port side of each other
- C) Vessel (A) shall be the give way vessel and wait outside of the breakwater. Vessel (B) shall stand its course
- D) Vessel (B) shall be the give way vessel and wait outside of the breakwater. Vessel (A) shall stand its course



## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- C 43 What is the appropriate course of action when two power driven vessel obscured by an intervening obstruction?
- A) Both vessels should clear the obstruction before initiating the turn
  - B) Vessel (B) shall get closer to the obstruction while vessel (A) shall bear away from the obstruction
  - C) Vessel (A) shall get closer to the obstruction while vessel (B) shall bear away from the obstruction
  - D) The faster vessel is the stand on vessel



- D 44 Which action is prohibited when proceeding along a narrow channel or fairway?
- A) A vessel shall keep as near to the outer limit of the channel on her starboard side when safe and practicable.
  - B) A vessel shall not run on a parallel heading to other vessels
  - C) A vessel shall not overtake another vessel unless permitted by the vessel to be overtaken
  - D) A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway.
- D 45 Which statement violates in port navigation rules?
- A) No anchoring is permitted unless circumstances of the case admits a loss of ship's control, or rescue operation
  - B) A vessel entering port shall wait outside the breakwater as to not impede the progress of a departing vessel
  - C) Vessels entering or leaving port shall proceed at no wake speed to prevent damage to vessels, structures and personnel
  - D) A vessel rounding a pier or obstruction on her port side shall do so by staying to port and as close as is possible
- B 46 The rules state that no anchoring is allowed in narrow channels and fairways for which situation?
- A) A shipwreck is to be avoided.
  - B) Fish nets are to be drawn
  - C) A vessel breaks down
  - D) Dredging or under water operations are to be carried out

## 2 Collision Avoidance Rule

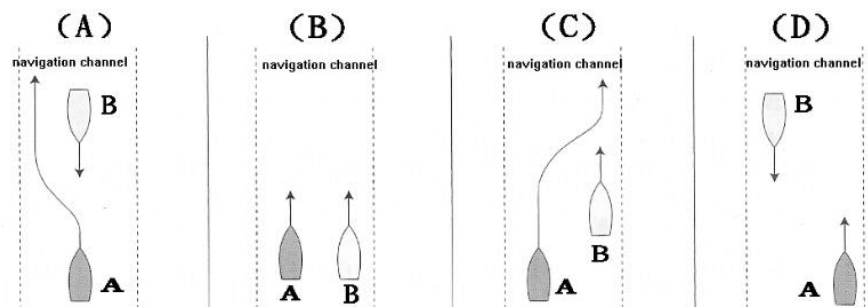
### 2 1 Various Navigation

- A 47 A vessel within a harbor boundary and about to round a dock like obstruction to starboard shall do what?  
A) Round the obstruction to starboard and as close to the mark as is safe to do so  
B) Round the obstruction to port and as far away from the mark as is safe to do so  
C) Round the obstruction upwind  
D) Round the obstruction downwind
- C 48 Which of the following actions should not be taken by a vessel when avoiding a collision?  
A) Perform the evasive action with clear intent  
B) Perform evasive action as early as possible  
C) Perform evasive action using continuous and minor course changes  
D) Communicate clearly with the opposing vessel
- A 49 A vessel navigating a narrow channel shall not impede the progress of a ship that can only sail safely within narrow waterways (standon vessel) when the giveaway vessel is how long?  
A) 20 meters or less  
B) 24 meters  
C) 28 meters  
D) 30 meters
- A 50 A vessel using a traffic separation scheme shall proceed in the appropriate traffic lane in the general direction of traffic flow for that lane and shall stay on which side?  
A) The starboard side  
B) The port side  
C) In the middle  
D) The inside
- A 51 Small power boats, Sailboats and fishing vessels are not permitted to operate within a traffic separation schemes when their length is?  
A) 20 meters or less  
B) 24 meters  
C) 28 meters  
D) 30 meters
- C 52 A vessel shall be deemed to be overtaking when coming up to another vessel from the stern at an angle that is greater than?  
A) 12.5 degrees  
B) 17.5 degrees  
C) 22.5 degrees  
D) 27.5 degrees

## 2 Collision Avoidance Rule

### 2 1 Various Navigation

- D 53 The following illustration shows two power driven vessels negotiating a narrow Channel. which situation show the correct procedure that must be followed by both vessels?
- A) Vessel (A) steering to port with vessel (B) staying on course.
  - B) Vessel (A) and Vessel (B) steering a parallel course.
  - C) Vessel (A) overtaking on the port side and crossing ahead of vessel (B)
  - D) Vessel (A) and vessel (B) are on a reciprocal course with each passing



- B 54 What is the highest order of priority a power driven vessel underway should explicitly keep out of the way of another vessel when it is?
- A) A vessel restricted in her ability to maneuver.
  - B) A vessel not under command
  - C) A sailing vessel
  - D) A vessel engaged in fishing.

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

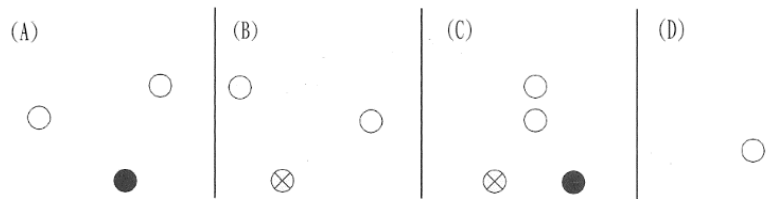
- A 1 A Vessels that ran aground at night shall, in addition to the lights prescribed by the rules for a vessel at anchor shall place on a vertical line in the most visible place two all around lights that are of which color?
  - A) Red
  - B) White
  - C) Green
  - D) Yellow
  
- B 2 Ships stranded during the day should be in the most visible place, showing how many balls on the vertical line?
  - A) Two balls
  - B) Three balls
  - C) Four balls
  - D) Two round ball with a diamond in the middle
  
- B 3 A power driven vessels insight of one another must comply with collision avoidance rules by using the appropriate warning signals which involves the use of which device?
  - A) High altitude flares
  - B) Whistles and flashing lights
  - C) Loud hailer
  - D) Hand signals
  
- C 4 A power driven vessel sights the navigation lights of a vessel (side lights and White mast light) head on and involving the risk of a collision. Which of the following actions is the correct one for this situation?
  - A) Stay on course and keep a watch on the other vessel's movements
  - B) Reduce speed and keep out of the way of other vessel
  - C) Alter course to starboard, and signal on her whistle that she is altering course to starboard
  - D) Alter course to port, and signal on her whistle that she is altering course to port

## 2 Collision Avoidance Rule

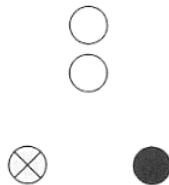
### 2 2 Light, Number, Whistle, Flag

- C 5 According to Colreg rule 14; Which navigation light aspect indicate the risk of a potential head on collision involving two power driven vessels on a reciprocal or near reciprocal course? (○) refers to White light, (⊗) Green light (⊗) and (●) Red light. select your answer from the figures below.

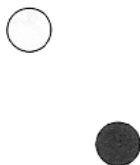
A) Figure (A)  
B) Figure (B)  
C) Figure (C)  
D) Figure (D)



- C 6 The Figure below represents a vessel 50 meters and over in length at night approaching your vessel from the stern. What action should you take to avoid a potential collision? (○) refers to white light, (●) red light and (⊗) green light.
- A) Alter course to starboard  
B) Stand down and make way for the other vessel  
C) Maintain course and Speed while keeping a watch on the other vessel  
D) Increase speed to put some distance between you and the other vessel



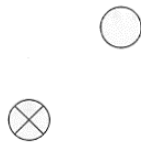
- C 7 A night lookout on a power driven vessel sights the lights another power driven vessel in front of its starboard side as shown in the illustration below. What should be the appropriate course of action to avoid a potential collision? (● refers to red light and white to white light)
- A) Stay on course Until the other vessel turns to starboard  
B) Increase speed and blow your whistle five successive blasts  
C) Take avoiding action to Stay out of the way of the other vessel  
D) Maintain speed and course along with a proper lookout.



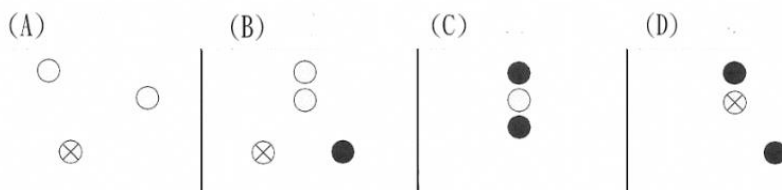
## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- D 8 A night lookout on a power driven vessel sights the lights of another power driven vessel in front of its port side as shown in the figure below. What should the appropriate course of action be by the sighting vessel to avoid a potential collision? (⊗ refers to Green light and (○) is White light.
- A) Stay on course and reduce speed until the vessel alters course to starboard.  
 B) Increase speed and sound your whistle 5 short blasts  
 C) Alter course and make way for the other vessel  
 D) Maintain speed and course while exercising caution



- B 9 A power driven vessel at night crossing the path of another vessel shall be the stand down vessel when the navigation lights of the on coming vessel exhibit which navigation light aspect?
- A) Masthead light and starboard light  
 B) Masthead light and port light  
 C) Port and Starboard lights  
 D) Bow light
- C 10 A fishing vessel engaged in fishing at night alters course as prescribed by the rules to avoid colliding with the sighted vessel. Which lights did the stand on vessel display? (○) is all round White light, (●) all round Red light and (⊗) all around Green light).
- A) Figure (A)  
 B) Figure (B)  
 C) Figure (C)  
 D) Figure (D)

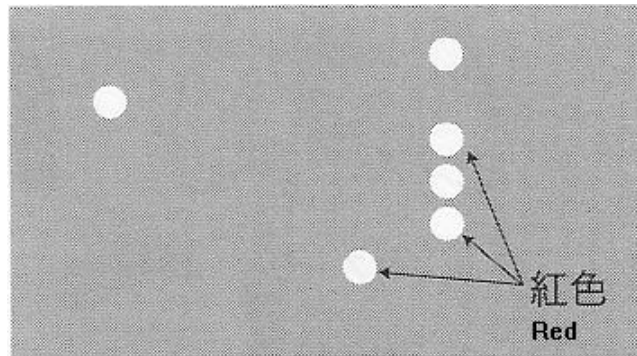


- B 11 A power driven vessel when navigating in or near an area of restricted visibility by day or night must navigate as prescribed by the rules for the prevailing conditions. Which collision avoidance action is incorrect?
- A) Maintain proper lookout by sight and hearing  
 B) Sound her whistle in a succession of short blasts  
 C) Turn on her navigation lights  
 D) Proceed at safe speeds adapted to the prevailing conditions.
- A 12 Which navigation light prescribed by the Col Reg rules is correctly described?
- A) White for Mast head light  
 B) Red for starboard light  
 C) Green for the port light  
 D) Yellow for Stern light

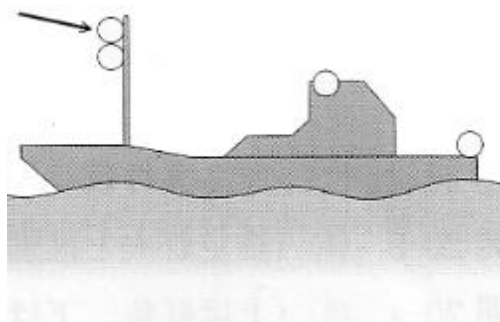
## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- B 13 A Vessel is observed with the following lights above her deck. Identify the vessel accordingly? The unmarked lights are all-round white lights. The arrow point to all-round red light.
- A) Power driven Vessel under 50 meters viewed from the starboard side
  - B) Power driven vessel over 50 meters and restricted in her ability to maneuver viewed from the port side
  - C) Vessel aground seen from the starboard side
  - D) Squid fishing vessel over 50 meters long or more viewed from the starboard side



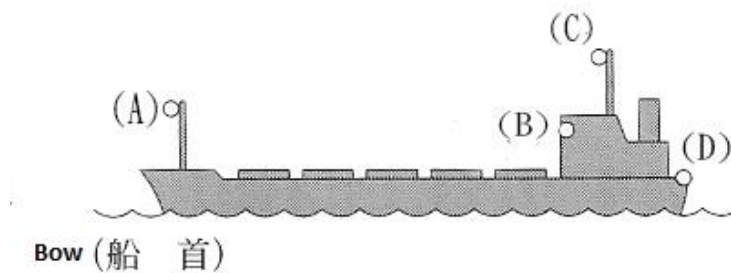
- A 14 lighting's used on board a vessel must not be confused with the legally mandated navigation lights to indicate the ship's position from sundown to sunset. Which lights would be considered to interfere with this guideline?
- A) lighting's must have the same characteristics as the mandated navigation lights.
  - B) Lighting's must not be mistaken for the legally mandated navigation lights
  - C) lighting's must not cannot interfere with the legally mandated
  - D) lighting's must not interfere with the crew's night vision
- B 15 The picture below shows a vessel engaged in fishing other than trawling making way as viewed from the port side. What shall the color of the single light indicated by the arrow be?
- A) Green
  - B) Red
  - C) Yellow
  - D) white



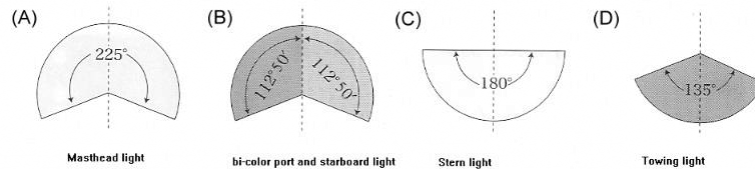
## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- C 16 A power driven vessel under 50 meters in length and making way shall be exempt from displaying which light?
- A) Masthead light forward (A)
  - B) Port light (B)
  - C) Mast head light abaft all lights (C)
  - D) Stern light (D)



- C 17 The illumination angle of statutory navigation lights are represented by the illustration below. Which of the following illumination angle is incorrect?
- A) Figure (A) Masthead light
  - B) Figure (B) Combination port and starboard light
  - C) Figure (C) Stern light
  - D) Figure (D) towing light



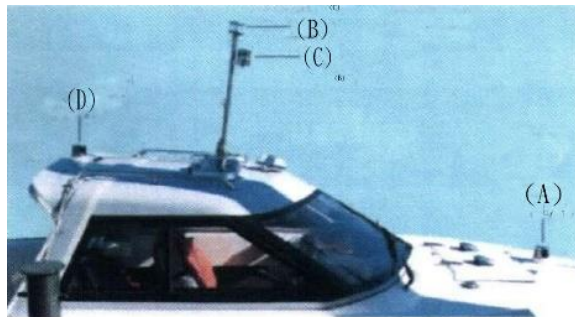
- D 18 Which of the following lights combination point to a vessel restricted in her ability to maneuver? (○) is all round White light , All round red light (●) and ⊗ is All round Green light.
- A) Figure (A) Green over White all round lights
  - B) Figure (B) Red over White all round lights
  - C) Figure (C) Three all-round Red lights
  - D) Figure (D) Red over White over Red all round lights



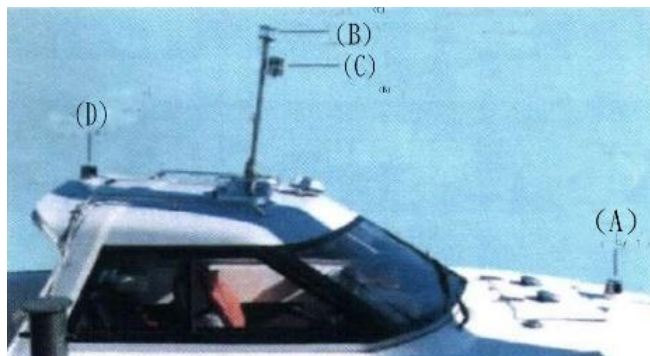
## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- B 19 Which light described below has the same characteristics as a towing light?  
A) Masthead light  
B) Stern light  
C) All round light  
D) Combined side lights
- A 20 According to the rules; A power driven vessel under 12 meters may have which side lights combined in one lantern?  
A) Red & Green  
B) Red and White  
C) Green and White  
D) Yellow and Green?
- B 21 Which vessel under the Colreg rules may combine her side lights and masthead light in one lantern?  
A) Sailing vessel 20 meters or more in length  
B) A Sailing vessel less than 20 meters in length  
C) A power driven vessel 20 meters in length or more  
D) A power driven vessel under 20 meters in length
- A 22 The picture below shows a power driven vessel with navigation lights as arranged. Which light is the combined side light lantern?  
A) Light (A)  
B) Light (B)  
C) Light (C)  
D) Light (D)



- C 23 The Photo below is for a power driven vessel under 50 meters. indicate which navigation light is the masthead light?  
A) Light (A)  
B) Light (B)  
C) Light (C)  
D) Light (D)

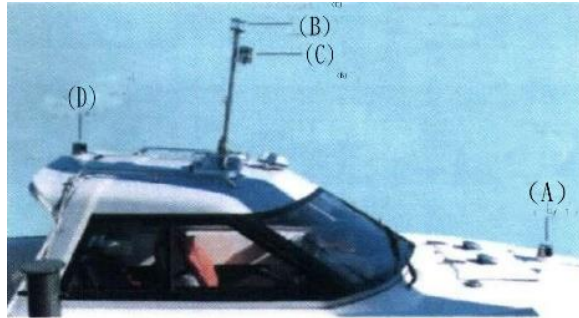


## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

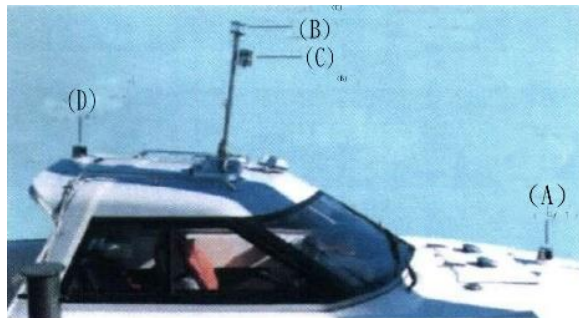
- D 24 The picture below shows a power driven vessel under 50 meters with navigation lights as arranged. Which navigation light is the Stern light?

- A) Light (A)
- B) Light (B)
- C) Light (C)
- D) Light (D)



- B 25 The picture below shows a power driven vessel less than 50 meters in length with the navigation lights as arranged. Which light indicates that the ship is at anchor?

- A) Light (A)
- B) Light (B)
- C) Light (C)
- D) Light (D)



- B 26 According to Colreg; Which definition is incorrect with respect to shapes used to signal the status of a vessel?
- A) A marker has to be black in color
  - B) There are an additional 10 other markers beside markers that are spherical, conical, cylindrical etc.
  - C) To be clearly seen during the day, the marker must be clearly visible to other vessels
  - D) Vessels of less than 20 meters length may use shapes of a size that is relative to the size of their vessel

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

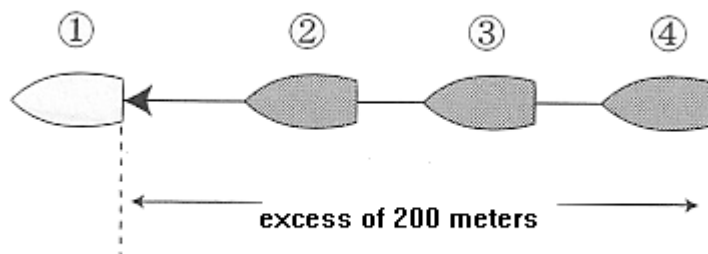
- C 27 During the day; What does a vessel signals when she exhibits where it can best be seen an all-round ball?
- A) She has run aground
  - B) She is engaged in fishing
  - C) She is at anchor
  - D) She is engaged in a towing operation



- D 28 A vessel that displays in a vertical line two apex cones end to end During the day signals that she is?
- A) A vessel not under command
  - B) A vessel engaged in towing operation
  - C) A vessel restricted in her ability to maneuver
  - D) A vessel engaged in fishing



- A 29 The following picture shows a tug with a series of vessels in tow with a combined length of 200 meters measured from the stern of the tug to the stern of the last two. On which vessel should the diamond mark be placed for this situation during the day?
- A) Vessel 1, 2, 3 and 4
  - B) Vessel 1 and 4
  - C) Vessel 4
  - D) Vessel 1



## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- D 30 Which of the following shapes should be hang by a fishing vessel engaged in fishing?
- A) One round ball (A)
  - B) Two round balls in a vertical line (B)
  - C) Diamond with apex up (C)
  - D) Two cones with apex end to end in a vertical line (D)



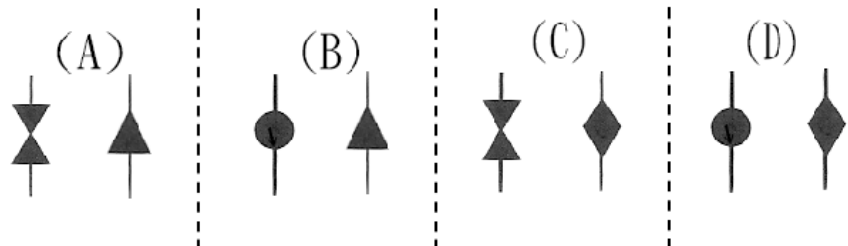
- D 31 A tug pulling a tow extending over 200 meters in length must display which of the following shapes and where?
- A) One diamond shape on the tug
  - B) One diamond shape at the stern of the tow
  - C) One diamond shape on the tug and one Diamond shape at the stern of the tow
  - D) One diamond shape on the tug and one diamond shape at the stern of the tow with an additional diamond shape where it can be best seen and located as far forward as is practicable
- C 32 A vessel displaying the shapes as shown in diagram below (Round, diamond, Round on a vertical line) during the day is
- A) A vessel not under command
  - B) a tug and tow
  - C) A vessel restricted in her ability to maneuver
  - D) A vessel engaged in fishing



## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 33 A fishing vessel engaged in fishing other than trawling and with fishing gear extending horizontally over 150 meters shall during day time shall exhibit a shape consisting of which shapes? Refer to figure (A) through (C) for your answer.
- A) Two cones with apexes end to end in a vertical line in addition a cone with apex pointing in the direction of the gear (A)
- B) A round ball and a cone apex up displayed side by side (B)
- C) Two cones with apexes together in a vertical line and a diamond displayed side by side (C)
- D) A Sphere and a diamond displayed side by side (D)



- C 34 Which sound signal corresponds to the correct maneuver / action?
- A) 1 short blast: vessel is altering course to port
- B) 2 short blasts: Vessel is altering course to starboard
- C) 3 short blasts: Vessel is going a stern
- D) 5 short blasts: Vessel is staying on course
- D 35 A vessel under 12 meters in length making way in limited visibility shall blow her whistle following which pattern?
- A) One short blast followed by two long blasts
- B) Four short blasts
- C) Three long blasts
- D) Any effective sound signal
- C 36 Under limited visibility; A vessel that blows her horn one long blast at an interval of no more than two minutes is what?
- A) A fishing vessel in operation
- B) A vessel at anchor
- C) A power driven vessel making way
- D) A vessel not under command
- B 37 What action should be avoided in an emergency when trying to attract ships passing near by?
- A) Launching an RFD Red rocket parachute flare to attract vessels passing by.
- B) Starting a fire on the boat to attract attention
- C) Hailing boats passing near by, by waving arms left and right
- D) Raising the International flags N & C or a flag with a ball underneath in a vertical line
- B 38 A ship in distress has several means of requesting assistance from vessels passing near by. Which action is incorrect?
- A) Call for help on the radio by broadcasting "MAY DAY" "MAY DAY" "MAY DAY" distress call?
- B) Raise the D & C flags of the international signal from top to bottom
- C) Hail ships passing by swinging both arms up and down slowly
- D) Launch a high-altitude parachute flare into the air

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- B 39 What is the meaning of raising and swinging one's arms up and down slowly?
- A) This is the signal for "man over board"
  - B) We are in distress and we need immediate assistance?
  - C) The search and rescue mission is over?
  - D) Go get help!?
- A 40 What sound signal should a sailing vessel emit at two minutes interval mean when navigating in an area of poor visibility? The dash is a long blast and the dot is for a short blast.
- A) — . .
  - B) — — .
  - C) — — —
  - D) . .
- B 41 Which vessel is exempt from using a bell when navigating in areas of restricted visibility?
- A) Vessels running at speeds below 7 knots?
  - B) Vessels less than 12 meters in length
  - C) Vessels with a displacement is under 20 gross tons.
  - D) Vessels with a draft of less than 3 meters
- A 42 When vessels in sight of one another shall immediately give at least five short rapid blasts on the ships whistle to signal which intention?
- A) She doesn't understand the intentions of the other vessel
  - B) She is altering course
  - C) That she is standing down
  - D) She is maintaining course and Speed
- B 43 Which situation described below does not require a vessel to use sound signals?
- A) When operating astern propulsion
  - B) When Altering course to avoid drifters/drift wood
  - C) When approaching a bend in a narrow channel
  - D) When overtaking another ship in a narrow channel
- D 44 A vessel experiencing a water leakage with no immediate danger shall broadcast over the VHF radio:
- A) A distress call made of the words "MAYDAY" "MAYDAY" "MAYDAY "
  - B) A Help call made of the words "HELP" "HELP" "HELP"
  - C) A security call made of the words "SECURITE" "SECURITE" "SECURITE "
  - D) An urgency call made of the words "PAN" "PAN" "PAN"
- C 45 Following a typhoon a huge patch of drift wood formed at the mouth of the Zhuoshui River which would affect the safety of navigation in the area. What is the appropriate message to broadcast over the VHF radio?
- A) A Distress call made of the words "MAYDAY" "MAYDAY" "MAYDAY"
  - B) A call for help made of the words "HELP" "HELP" "HELP"
  - C) A security call made of the words "SECURITE" "SECURITE" "SECURITE"
  - D) An urgency call made of the words "PAN" "PAN" "PAN"

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 46 What is the significance of a vessel suddenly calling "MAYDAY" "MAYDAY" on the VHF radio?
- A) The vessel is in immediate danger and requires vessels in the vicinity to come to its assistance?
  - B) The vessel has encountered a navigational hazard that may constitute a danger to life at seas
  - C) The vessel has an emergency on board but is no immediate danger to life or the safety of the vessel
  - D) The vessel requests that the Mayday song be played over the air!
- A 47 According to regulation how many short blasts should a vessel insight of one another vessel sound when altering course to starboard?
- A) 1 short blast
  - B) 2 Short blasts
  - C) 3 short blasts
  - D) 4 short blasts
- B 48 According to regulation how many short blasts should a vessel insight of another vessel sound when altering course to port?
- A) 1 short blast
  - B) 2 Short blasts
  - C) 3 short blasts
  - D) 4 short blasts
- C 49 According to regulation, a vessel insight of one another vessel shall emit how many short blasts when reversing her propulsion a stern?
- A) 1 short blast
  - B) 2 Short blasts
  - C) 3 short blasts
  - D) 4 short blasts
- B 50 According to the COLREG, how many all-round red lights a vessel not under command shall exhibit in a vertical line? at night ?
- A) One
  - B) Two
  - C) Three
  - D) Four
- B 51 According to Colreg; what acoustic signals should be sounded by a vessel that is not under command?
- A) One long and one short
  - B) One long and two short
  - C) One long and three short
  - D) One long and four short
- B 52 Which one of the following vessels shall exhibit two balls or similar shapes in a vertical line where they can best be seen by day ?
- A) Vessels taking in or discharging dangerous cargo
  - B) Vessels not under command
  - C) Vessels restricted in her ability to maneuver
  - D) Vessels engaged in a towing operation

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- C 53 Which one of the following vessels shall exhibit three all-round lights in a vertical line where they can best be seen at night ? The highest and lowest of these lights shall be red and the middle light shall be white.
- A) Vessels taking in or discharging dangerous cargo
  - B) Vessels not under command
  - C) Vessels restricted in her ability to maneuver
  - D) Vessels engaged in a towing operation
- C 54 Which one of the following conditions shall exhibit three shapes in a vertical line where they can best be seen by day? The highest and lowest of these shapes shall be balls and the middle one a diamond.
- A) Vessels loading or discharging dangerous cargo
  - B) Vessels not under command
  - C) Vessels restricted in her ability to maneuver
  - D) Vessels engaged in a towing operation
- D 55 For a power-driven vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course, what lights shall she exhibit at night in addition to the lights indicating being towed or pushed ahead ?
- A) One all-round red light
  - B) Two all-round red lights
  - C) Three all-round red lights
  - D) Three all-round red lights, of which the highest and the lowest shall be red and the middle shall be white
- C 56 For a power-driven vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course, how shall she exhibit shape by day, in addition to the shapes indicating being towed or being pushed ahead ?
- A) One ball or similar shape
  - B) Two balls or similar shapes
  - C) The highest and the lowest shapes shall be balls and the middle one shall be a diamond
  - D) One cylinder
- A 57 For a vessel engaging on pilotage duty, how shall she exhibit lights at or near the masthead in a vertical line at night?
- A) Two all-round lights, the upper being White and the lower Red
  - B) Two all-round lights, the upper being Red and the lower White
  - C) Two all-round Red lights
  - D) Two all-round White lights
- D 58 For a vessel engaging on pilotage duty in addition to the lights in a vertical line prescribed for vessels engaged on pilotage duty, what other lights shall she exhibit at night when underway?
- A) Two all-round White lights
  - B) Two all-round Green lights
  - C) Two all-round Red lights
  - D) Sidelights and a stern light

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- B 59 Ships of less than 50 meters in length are anchored at night, what kind of lights can be displayed at the most visible place?
- A) All-round Green light
  - B) All-round White light
  - C) All-round Red light
  - D) All round Yellow light
- A 60 A vessel may exhibit an all-round white light where it can best be seen instead of the lights prescribed in the rules when her length is under how many meters?
- A) 50 meters
  - B) 75 meters
  - C) 100 meters
  - D) 150 meters
- D 61 A vessel at anchor shall also use the available working or equivalent lights to illuminate her decks when her length is how many meters?
- A) 25 meters
  - B) 50 meters
  - C) 75 meters
  - D) 100 meters
- A 62 A vessel when at anchor or aground, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to display the lights prescribed by the rules when her length is how many meters?
- A) Less than 7 meters
  - B) Less than 12 meters
  - C) Less than 20 meters
  - D) Less than 24 meters
- A 63 A vessel when at anchor or aground, not in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate, shall not be required to display the lights prescribed by the rules when her length is how many meters?
- A) 7 meters
  - B) 12 meters
  - C) 15 meters
  - D) 20 meters
- A 64 A vessel when aground, shall not be required to exhibit the lights or shapes prescribed by the rules when her length is under how many meters?
- A) 12 meters
  - B) 20 meters
  - C) 24 meters
  - D) 30 meters
- A 65 A vessel when aground during the day, shall not be required to exhibit the shapes prescribed by the rules when her length is under how many meters?
- A) 12 meters
  - B) 20 meters
  - C) 24 meters
  - D) 30 meters

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 66 The term "short blast" means a blast which has the duration of about how many seconds?
- A) 1 second
  - B) 2 second
  - C) 3 second
  - D) 4 second
- D 67 The term "prolonged" means a blast which as a duration of about?
- A) 1 to 1.5 seconds
  - B) 1 to 2.5 seconds
  - C) 2 to 3.5 seconds
  - D) 4 to 6 seconds
- D 68 Under the colreg rules a vessel must be equipped with sound signaling equipment comprising a whistle when her length is equal to or greater than how many meters?
- A) 5 meters
  - B) 7 meters
  - C) 10 meters
  - D) 12 meters
- D 69 According to the COL.REG requirements for sound signalling equipment; A vessel shall be provided with a whistle and a bell when the vessel length is how many meters?
- A) 5 meters
  - B) 7 meters
  - C) 12 meters
  - D) 20 meters
- A 70 According to Colreg. sound signalling requirements; A vessel shall not be obliged to carry a whistle as prescribed when her length is less than how many meters?
- A) 12 meters
  - B) 20 meters
  - C) 24 meters
  - D) 50 meters
- A 71 When vessels are in sight of one another, a power-driven vessel underway, when maneuvering as authorized or required by the Rules; What sound signal shall she sound out to mean "I am altering my course to starboard" ?
- A) .
  - B) . .
  - C) . . .
  - D) . . . .
- B 72 When vessels are in sight of one another, a power-driven vessel underway, when manoeuvring as authorized or required by the Rules; What sound signal shall she sound out to mean "I am altering my course to port" ?
- A) .
  - B) . .
  - C) . . .
  - D) . . . .

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- C 73 When vessels are in sight of one another, a power-driven vessel underway, when maneuvering as authorized or required by the Rules; What sound signal shall she sound out to mean "I am operating astern propulsion" ?
- A) .  
B) . .  
C) . . .  
D) . . .
- C 74 When maneuvering in a narrow channel or fairway as authorized or required by the Rules; a power driven vessel about to overtake another vessel on the starboard side, shall signal "I intend to overtake you on your starboard side" by emitting which sound signal?
- A) — .  
B) — . .  
C) — — .  
D) — — . .
- D 75 When power driven vessels under way are in sight of one another in a narrow channel or fairway, when maneuvering as authorized or required by the Rules; What sound signal shall she sound out to mean "I intend to overtake you on your port side" ?
- A) — .  
B) — . .  
C) — — .  
D) — — . .
- B 76 When in sight of one another in a narrow channel or fairway, how shall a power-driven vessel underway about to be overtaken give sound signals on her whistle to indicate her agreement ?
- A) — .  
B) — . — .  
C) . —  
D) . — . —
- D 77 When vessels in sight of one another are approaching each other and for any cause either vessel fails to understand the intentions or actions of the other, the vessel in doubt shall immediately indicate such doubt by giving at least how many short and rapid blasts on the whistle ?
- A) . .  
B) . . .  
C) . . . .  
D) . . . . .
- A 78 A vessel nearing a bend or an area of a channel or fairway where other vessels may be obscured by an intervening obstruction shall sound which signal?
- A) —  
B) — —  
C) .  
D) . .

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 79 a vessel nearing a bend or rounding and obstruction; upon hearing a sound signal made of one long blast shall respond by emitting which of the following sounds?
- A) — One long blast
  - B) — — Two long blasts
  - C) . One short blast
  - D) . . Two short blasts
- B 80 A vessel fitted with two whistles, shall use either of them but not both when the whistles are more than how many meters apart?.
- A) 50 meters
  - B) 100 meters
  - C) 150 meters
  - D) 200 meters
- B 81 A power driven vessel making way through the water in or near an area of restricted visibility, whether by day or night, shall sound one prolonged blast at an interval of no more than how many minutes?
- A) One minute
  - B) Two minutes
  - C) Three minutes
  - D) Four minutes
- B 82 In or near an area of restricted visibility, whether by day or night, a power driven vessel underway but stopped and not making way through the water shall sound at interval of not more than 2 minutes which sound signal?
- A) — One long blast
  - B) — — Two prolonged blasts
  - C) . One short blast
  - D) . . Two short blasts
- B 83 In or near an area of restricted visibility, whether by day or night, a power driven vessel underway but stopped and not making way through the water shall sound two long blast at an interval of no more than how many minutes?
- A) One minute
  - B) Two minutes
  - C) Three minutes
  - D) Four minutes
- B 84 In or near an area of restricted visibility, whether by day or night, a power driven vessel underway but stopped and not making way through the water shall sound two long blast at an interval of two minutes with an interval between them of about how many seconds?
- A) One second
  - B) Two seconds
  - C) Three seconds
  - D) Four seconds

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- D 85 A vessel that Fires a gun or other explosive signal at intervals of about a minute indicates that she is ?  
A) Engaged in a towing operation  
B) Engaged in Pilotage duty  
C) Engaged in Fishing operation  
D) In distress and requires assistance
- B 86 A vessel that launches rockets or shells, throwing Red stars fired one at a time at short intervals indicates that she is?  
A) Engaged in towing operation  
B) In Distress and needs assistance  
C) Engaged in Fishing  
D) Casting submarine cable
- B 87 A vessel transmitting, the SOS signal comprising the Morse signal group "...-----" electronically, visually, or audibly, indicates that she is a vessel?  
A) Engaged in a towing operation  
B) In Distress and requires assistance  
C) Engaged in Fishing  
D) Casting a submarine cable
- C 88 When a boat casts flames as from a burning garments, tar oil and the like, indicates that she is a vessel?  
A) Engaged in fishing  
B) Laying buoys  
C) In distress and in need of assistance  
D) Engaged in a diving operations
- B 89 A vessel that is casting rocket parachute flares or a hand-held flares red in color indicates that she is a vessel?  
A) Engaged in fishing  
B) In distress and in need of assistance  
C) Laying buoys  
D) Engaged in a diving operations
- B 90 A vessel that's releasing an orange smoke signal is a vessel that is?  
A) Engaged in fishing  
B) In Distress and in need of assistance  
C) Laying out buoys  
D) Engaged in diving operation
- A 91 When you see a vessel with someone slowly and repeatedly raising and lowering arms outstretched to each side is an indication that the vessel is what?  
A) In distress and requires assistance  
B) Engaged in fishing  
C) Laying buoys  
D) Engaged in a diving operation
- A 92 Which of the following types of distress and rescue equipment is EPIRB?  
A) Emergency radio position indicator  
B) Radar interrogator  
C) Radar reflector  
D) Radio direction finder

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- B 93 When a vessel is refueling or loading fuel aboard during day time, which international signal flag should be raised?  
A) Alfa flag  
B) Bravo flag  
C) Charlie flag  
D) Delta flag
- C 94 When a vessel is refueling at night; What color should the fixed or flashing all around light be?  
A) White  
B) Yellow  
C) Red  
D) Green
- D 95 Which flag signal should be raised when a vessel is maneuvering with some levels of difficulty?  
A) Alfa flag  
B) Bravo flag  
C) Charlie flag  
D) Delta flag
- A 96 Colreg Rule 27 which applies to Vessels not under command or restricted in their ability to manoeuvre, stipulate that A vessel not engaged in a diving operations shall not be required to exhibit the lights and shapes prescribed by the rule when the vessel length is less than how many meters?  
A) 12 meters  
B) 20 meters  
C) 24 meters  
D) 50 meters
- D 97 Which of the following procedure is incorrect When sighting a power driven vessel on your port bow with two balls in a vertical line?  
A) Slow down and proceed at a safe speed appropriate for the prevailing circumstance  
B) Stop at a distance appropriate for the prevailing circumstance  
C) Operate the machinery in reverse appropriate for the prevailing circumstance  
D) Increased speed
- B 98 Which of the following actions is incorrect When sighting a power driven vessel at night on your port bow having two all around Red light?  
A) Slow down and proceed at a safe speed appropriate for the prevailing circumstance  
B) Increased ship speed  
C) Operate the machinery in reverse appropriate for the prevailing circumstance  
D) Stop at a distance appropriate for the prevailing circumstance

## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 99 A vessel engaged in fishing other than trawling with gear extending more than 150 meters horizontally from the vessel shall exhibit in the direction of the gear which light?  
A) An all around White light  
B) An all around Yellow light  
C) An all around Red light  
D) An all around Green light
- C 100 A fishing vessel under 50 meters in length engaged in trawling at night, in addition to the side lights and stern lights, shall exhibit in a vertical line all-round lights that are of which color?.  
A) Red over Green  
B) Red over White  
C) Green over White  
D) White over Red
- B 101 A vessel engaged in a trawling operation during day time shall as prescribed by the rules display which of the following shapes?  
A) A cylindrical mark  
B) Two apex cones end to end in a vertical line  
C) A round ball  
D) Two round balls
- C 102 A vessel exhibiting a round ball during day time is a vessel?  
A) Restricted in her ability to maneuver  
B) Engaged in fishing  
C) At anchor  
D) Engaged in towing
- D 103 A vessel that displays a diamond shape during day time is a vessel?.  
A) Restricted in her ability to maneuver  
B) Engaged in a fishing operations  
C) A Vessel at anchor  
D) A Vessel engaged in a towing operation
- B 104 A vessel engaged in fishing other than trawling shall exhibit on a vertical line all- around lights of which color?  
A) Red over Green  
B) Red over White  
C) Green over White  
D) White over Red
- D 105 A vessel engaged in a fishing operation other than trawling should by day exhibit which of the following marks?  
A) One round ball  
B) Two round balls  
C) A cylinders  
D) Two apex cones end to end on a vertical line
- D 106 A vessel engaged in fishing with outlaying gear extending horizontally from the vessel an all-round white light or a cone apex upwards in the direction of the gear when the outlaying fishing gear is longer than how many meters?  
A) 60 meters  
B) 90 meters  
C) 120 meters  
D) 150 meters

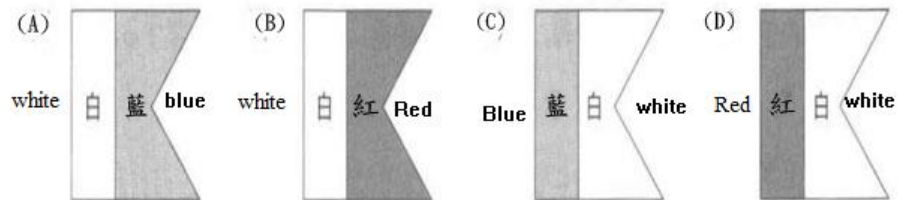
## 2 Collision Avoidance Rule

### 2 2 Light, Number, Whistle, Flag

- A 107 Which channel should be used on a two way VHF radios (walkie-talkie) to broadcast emergency distress signals?
- A) Channel 16
  - B) Channel 15
  - C) Channel 14
  - D) Channel 13

- A 108 A vessel engaged in a diving operation shall exhibit where it can best be seen the international signal flag Alfa. Identify the alfa flag from the selection below? where W=white, R=Red, B=blue.

- A) Figure (A) White / Blue
- B) Figure (B) White / Red
- C) Figure (C) Blue / White
- D) Figure (D) Red / White



- B 109 A vessel that exhibits where it can best be seen the flag shown below indicates what?
- A) She is carrying out a man overboard recovery operation
  - B) She is loading or unloading Dangerous cargo
  - C) She is requesting that engines be stopped immediately
  - D) She has divers in the vicinity



### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- D 1 Which of the following may affect the turning circle of a power driven vessel?
- A) Vessel length
  - B) Vessel speed
  - C) Vessel angle of list
  - D) All of the above
- A 2 When is a small power driven vessel at its most vulnerable when negotiating waves?
- A) The trough
  - B) The crest
  - C) Both crest and trough
  - D) None of the above?
- C 3 Which of the following disturbances has the greatest effect on a vessel's handling?
- A) Tidal current
  - B) Wind pressure
  - C) Tidal current and wind pressure
  - D) Downwind vessel handling is easiest
- A 4 Which of the following structures cannot be identified when on the water?
- A) Satellite
  - B) Lighthouse
  - C) Lateral marks
  - D) Cardinal marks
- D 5 Which of the following structures can be used for a position fix?
- A) A Small Island
  - B) A Reef
  - C) A Breakwater
  - D) All of the above
- D 6 When operating a small power driven vessel particular safety consideration must be given to what?
- A) Fishing vessels and sailboats
  - B) Wake generated by large vessels
  - C) Floating fish farms
  - D) All of the above
- A 7 Which of the following action is punishable by law when in command of small power boat?
- A) Driving a vessel with an expired skipper license
  - B) Using an unassigned berth
  - C) Carrying out navigation by night
  - D) Harvesting seaweeds along the coastline
- C 8 Which documents a vessel must carry on board beside the vessel's yacht certificate?
- A) the vessel's certificate of nationality
  - B) The vessel's certificate of registration
  - C) The captain's valid skipper license
  - D) All of the above

### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- D 9 Competent authorities in charge of waters under their jurisdiction may impose restrictions involving what?
- A) Vessel sailing time
  - B) Vessel speed
  - C) Areas of navigation
  - D) All of the above
- C 10 Which of the following statements is incorrect when considering the safety obligations of a passenger carrying vessel?
- A) Safety equipment and life saving devices should be placed in obvious and accessible locations on board.
  - B) Qualified crew members are obligated to demonstrate the use of the life jacket before sailing.
  - C) excess cargo shall be stacked in the engine room and available space normally reserved for passengers
  - D) Limiting the numbers of passengers on board to ensure the safety of both vessel and passengers
- C 11 A safety check must be carried out on board a vessel to ensure operational safety and that all items on board are properly lashed and secured. When shall the safety check be carried out?
- A) Before the scheduled annual mandatory inspection
  - B) After the scheduled annual mandatory inspection
  - C) Before going out to sea
  - D) Upon returning to the dock
- D 12 The law requires that clear safety notices outlining safety information on board be posted throughout the vessel. Which of the following safety information is incorrect?
- A) Emergency evacuation points location
  - B) Meaning of all emergency sound signals
  - C) Life jackets and survival gear usage
  - D) Passenger list manifest
- D 13 The law governing the behavior and responsibility of a yacht master is written into and regulated by which act?
- A) Maritime act
  - B) Fisheries act
  - C) Commercial Port Law act
  - D) Seafarer's Act
- C 14 A skipper that is responsible for causing a shipwreck shall be liable for the accident under which law?
- A) Civil law
  - B) Criminal law
  - C) Both criminal and civil law
  - D) None of the above

### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- C 15 A Skipper shall be competent and responsible when in command of a vessel. Which of the following statement is correct?  
A) A competent skipper does not need to follow administrative procedures  
B) A competent skipper can drive his vessel recklessly if he so desires.  
C) A competent skipper complies with all rules and regulations.  
D) None of the above.
- D 16 When passage planning the captain of a vessel must consider which factors?  
A) Tides and currents  
B) Weather forecast  
C) Supplies, fuel and water for the duration of the passage  
D) All of the above
- B 17 Which of the following passage planning consideration is irrelevant?  
A) Tidal stream strength and direction  
B) Water density  
C) Traffic lane separation scheme  
D) Vessel seaworthiness
- D 18 When operating a vessel, special consideration must be given to what?  
A) Fish havens  
B) Sailing vessels, Small water crafts, protected swimming zones  
C) Dredging and construction work  
D) All of the above.
- A 19 Which of the following statements reflects poor seamanship?  
A) Not maintaining a proper lookout for other vessels  
B) Complying with the international rules for avoiding collisions at sea  
C) Paying attention to changes in weather patterns  
D) Paying attention to changes in sea conditions
- D 20 Which of the following basic rules and priorities a skipper shall comply with when in command of a vessel?  
A) Provide rescue assistance when requested.  
B) Refrain from driving a vessel when under the influence of alcohol?  
C) Ensure that life jackets are worn or are easily accessible in an Emergency  
D) All of the above
- C 21 Which is the incorrect decision to make When operating a vessel in an area of restricted visibility?  
A) Sound the appropriate fog signal  
B) Keep a look out  
C) Increase speed  
D) Reduce speed to a minimum while watching for the sound signals of approaching vessels
- C 22 Which course of action should a vessel avoid taking when negotiating a narrow waterway?  
A) Stay at the outer limit of the channel on her starboard side  
B) Keep a safe distance as far as is practicable from shoals  
C) Cross the narrow channel in front of a coming vessel  
D) Maintain proper speed with particular alertness

### 3 Maritime Knowledge

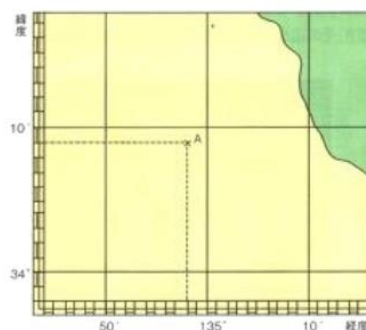
#### 3 1 Particularity And Driving

- C 23 Indicate which action is inconsistent with good seamanship for a vessel about to sail?
- A) Carry out on board safety check
  - B) Study the weather report
  - C) Drink refreshment
  - D) Check fuel, and fresh water levels
- C 24 Which of the following actions is inconsistent with good seamanship?
- A) Keeping clear of traffic separation lines to avoid large vessels
  - B) Give way to outbound vessels when entering port
  - C) Maintaining high-speed when visibility is restricted
  - D) Reducing speed when navigating narrow waterways
- A 25 Which is the correct maneuver when crossing a traffic separation scheme?
- A) Crossing a channel at right angle to the general direction of travel
  - B) Crossing a channel at a wide angle to the general direction of travel
  - C) Sailing Parallel to the general direction of travel before making a quick fast turn
  - D) The crossing depends on traffic flow
- B 26 What is the principle cause of tides?
- A) Earth's axial rotation
  - B) Lunar gravity
  - C) Solar gravity
  - D) Earth's revolution around the sun
- A 27 What are the two high tides and two low tides on each tidal day referred to us?
- A) Semi diurnal tide
  - B) Diurnal tide
  - C) Mixed tide
  - D) None of the above
- B 28 For each tide day there is a high tide and a low tide what is the name given to this tidal cycle?
- A) Semi diurnal tide
  - B) Diurnal tide
  - C) Mixed tide
  - D) None of the above
- C 29 What is the mean height of all tidal water levels recorded and averaged over a 19-year period?
- A) High tide level
  - B) Low tide level
  - C) Mean sea level (MSL)
  - D) Semi diurnal level
- A 30 How many meters equal One nautical mile?
- A) 1852 meters
  - B) 6080 meters
  - C) 2000 meters
  - D) 5280 meters

### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

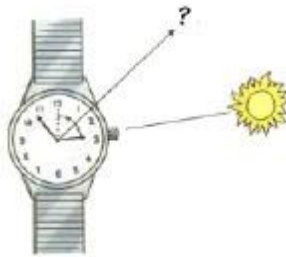
- A 31 What is the correct definition of speed?  
 A) Knots per hour  
 B) hour per knot  
 C) Mile per hour  
 D) Hour per Mile
- A 32 A vessel on a heading of  $120^\circ$  making 12 knots through the water sails into a 2 knots tidal current bearing  $300^\circ$  What is the vessel's theoretical speed on the ground?  
 A) 10 knots  
 B) 12 knots  
 C) 14 knots  
 D) 16 knots
- A 33 A vessel on a heading of  $120^\circ$  making 12 knots through the water sails into a 2 knots tidal stream bearing  $240^\circ$  What is the vessel's approximate theoretical speed on the ground?  
 A) 10 knots  
 B) 12 knots  
 C) 14 knots  
 D) 16 knots
- B 34 How many nautical miles (Nm) can a vessel cover in 15 minutes at 12 knots ? Ignore wind & current.  
 A) 4 Nm  
 B) 3 Nm  
 C) 2 Nm  
 D) 1 Nm
- B 35 How long would it take a vessel to cover 30 nautical miles when running at a speed of 24 knots?  
 A) 1.15 hours  
 B) 1.25 hours  
 C) 1.35 hours  
 D) 1.45 hours
- B 36 What is the latitude and longitude of the vessel at point A on the chart below?  
 A)  $34.8^\circ\text{N } 134.58^\circ\text{E}$   
 B)  $34.9^\circ\text{N } 134.58^\circ\text{E}$   
 C)  $34.9^\circ\text{N } 134.57^\circ\text{E}$   
 D)  $34.9^\circ\text{N } 135.58^\circ\text{E}$



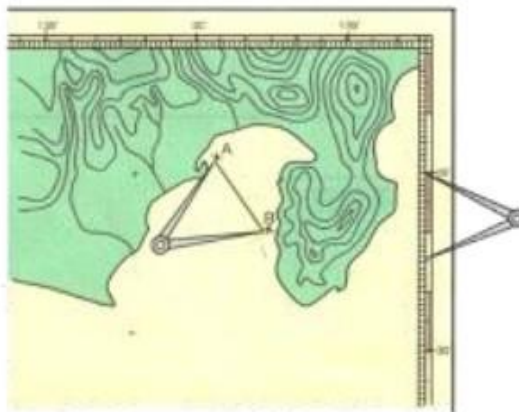
### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- C 37 A seaman in the Taiwan straight (Northern hemisphere) can use his watch to tell direction. This is achieved by pointing the hour hand towards the sun and bisecting the angle between the hour needle and the 12 O'clock position. What is the direction indicated?
- A) East
  - B) West
  - C) South
  - D) North



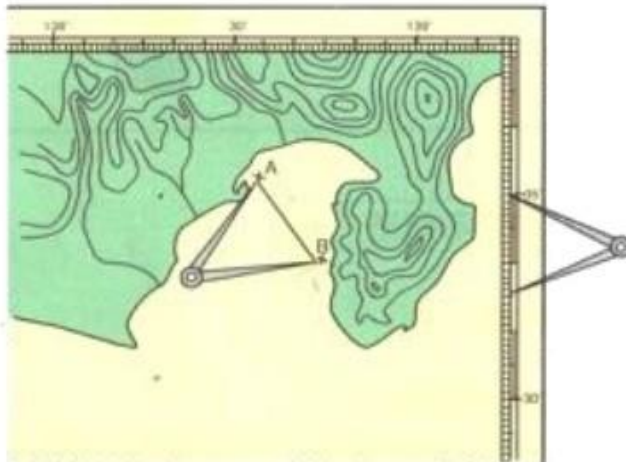
- A 38 The figure below shows a two step chart work involving segment A&B scaled on the chart with a divider. What is being measured?
- A) Distance
  - B) Azimuth
  - C) Heading
  - D) Ship Speed



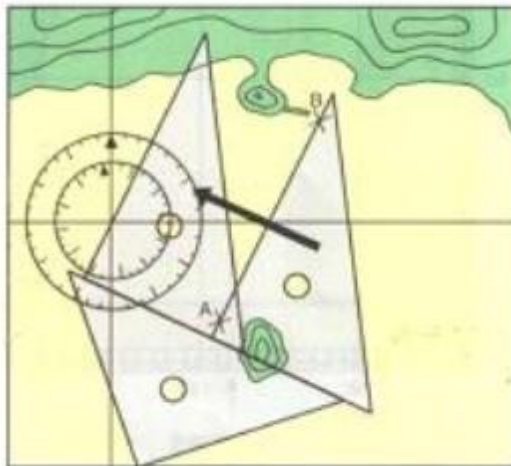
### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- A 39 The picture shows a two step chart work inferring a distance measurement between points A&B. what is the distance between these two points in Nautical Miles(NM) on the chart scale?
- A) 13.5 NM
  - B) 14.5 NM
  - C) 15.5 NM
  - D) 16.5 NM



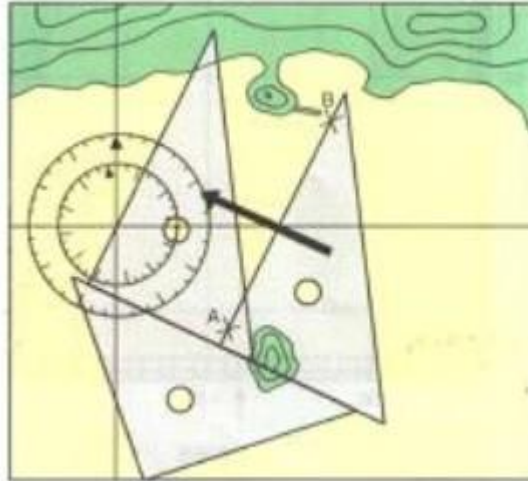
- B 40 The picture below shows chart work which transposes segment AB on the chart's compass rose. What is being determined using this method?
- A) Distance
  - B) Bearing
  - C) Position
  - D) Vessel speed



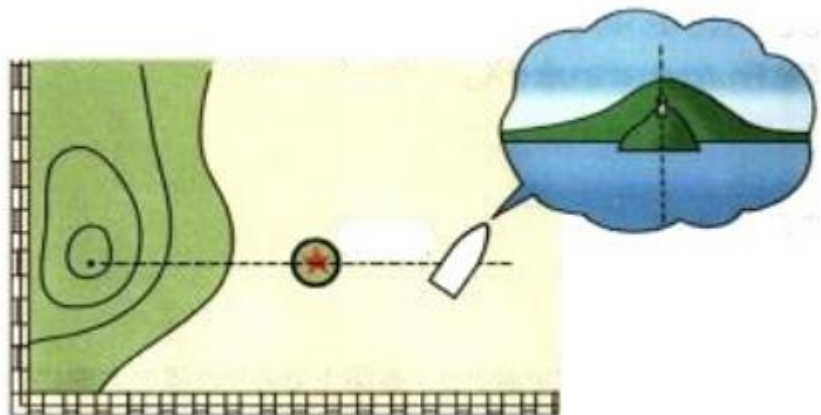
### 3 Maritime Knowledge

#### 3 1 Particularity And Driving

- B 41 What is the heading formed by segment AB?
- A) Magnetic 30 bearing 35 True
  - B) Magnetic 35 bearing 30 true
  - C) Magnetic 20 bearing 25 true
  - D) Magnetic 25 magnetic 20 true



- C 42 Looking at the chart below; A mariner takes a bearing of Two perfectly aligned landmarks with a hand held magnetic compass. The bearing is referred to as a transit bearing. Now consider the two statements and determine the answer? (a) Using a transit bearing with a position line produces a running fix for the ship's position. (b) A transit bearing can be used to compare compass bearing and true bearing on a chart to determine compass error.
- A) Statement (a) is correct
  - B) Statement (b) is Correct
  - C) Both statements are correct
  - D) Both statements are wrong



### **3 Maritime Knowledge**

#### **3 1 Particularity And Driving**

- B 43 Which of the following 4 statements regarding Buoyant smoke signals is incorrect?
- A) The smoke canister is thrown overboard with a life buoy to mark the MOB spot
  - B) A vessel in distress will use the Buoyant smoke signal to signal passing ships and planes
  - C) The smoke canister is activated after 10 seconds when submerges 100 mm under water
  - D) When the orange smoke canister is immersed in seawater it is automatically activated?

### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

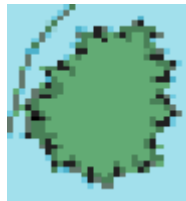
- A 1 When does driving a boat compare with driving an automobile?
  - A) The automobile is easier to drive?
  - B) A power boat is easier to stop?
  - C) A power boat is easier to steer?
  - D) A power boat is easier to reverse?
  
- C 2 A vessel shall be equipped with a compass when the vessel tonnage is?
  - A) 15 Tons or more
  - B) 10 Tons or more
  - C) 5 Tons or more
  - D) None of the above
  
- D 3 A vessel shall be equipped with a two way radio (walkies-talkie) or UHF/VHF radiotelephone when the vessel has a gross tonnage of?
  - A) 15 tons or more
  - B) 10 tons or more
  - C) 5 tons or more
  - D) All of the above
  
- D 4 Which statement is incorrect with respect to the purpose of a taking transit bearing?
  - A) Determine a bearing line
  - B) Determine compass error
  - C) Determine positioning
  - D) Measuring vessel speed
  
- D 5 What is the key factor in making a chart suitable for navigation?
  - A) The chart issuer and last survey date
  - B) The level of details available on the chart
  - C) The scale on the chart
  - D) All of the above.
  
- B 6 Which of the following criteria should a navigator pay attention to when selecting a sea chart?
  - A) Detailed small scale chart
  - B) General large scale chart
  - C) Accuracy of the sea chart
  - D) Sea chart Warnings and updates

### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- D 7 Which statement is correct Referring to bathymetric and tidal information on a navigation chart?
- A) High tide refers to the water surface above the datum line
  - B) Depth refers to the vertical distance from the datum to the sea floor
  - C) Water depth refers to the vertical distance between the datum and the seafloor
  - D) All of the above

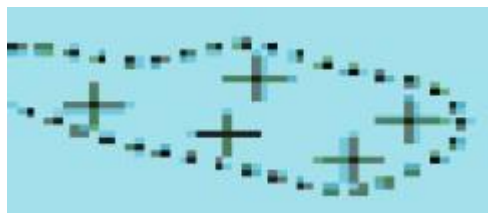
- A 8 What does this symbol represent on a nautical chart?
- A) A rock which covers and uncovers height above chart datum
  - B) A coral reef
  - C) Rock awash at the level of chart datum
  - D) Underwater rock of known depth, dangerous to surface navigation



- B 9 What does this symbol represent on a nautical chart?
- A) Rock which covers and uncovers
  - B) Submerged coral reef
  - C) Rock awash
  - D) Underwater rock, dangerous to surface navigation



- D 10 What does this symbol represent on a nautical chart?
- A) Rocks which covers and uncovers
  - B) Coral reef
  - C) Rock awash
  - D) Underwater rock of unknown depth, dangerous to surface navigation



### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- A 11 When considering bathymetry and tide information on a chart; The distance from the surface of the water to the chart datum is the ?  
A) Height of tide  
B) Water depth  
C) Charted depth  
D) None of the above
- C 12 When considering bathymetry and tide information on a chart; What is the vertical distance from the datum of the chart to the sea floor?  
A) Tide height  
B) Water depth  
C) Charted depth  
D) none of the above.
- A 13 Which Transliteration of the coordinate shown below is correct?  
A) 126 degrees 30 minutes East longitude  
B) 126 degrees 30 minutes West longitude  
C) Heading 126 degrees 30 minutes East  
D) Heading 126 degrees 30 minutes West

126°30'E

- B 14 What is the equivalent of distance on the nautical chart?  
A) Longitude  
B) Latitude  
C) Longitude or latitude  
D) Average longitude and latitude
- B 15 What does this symbol on a chart represents?  
A) Tidal Current  
B) Fishing Stakes  
C) Obstacle  
D) Submerged Reef, Danger Zone



- D 16 What are the advantages of a magnetic compasses?  
A) Simple structure  
B) Not easy to malfunction  
C) No need to use electricity  
D) All of the above
- C 17 What is the difference between true North and compass North?  
A) Magnetic deviation  
B) Compass error  
C) Magnetic variation  
D) Magnetic inclination (dip)
- B 18 What is the meaning of magnetic variation?  
A) The difference between magnetic north and compass north  
B) The difference between magnetic north and true north  
C) The difference between true north and compass North  
D) The difference between magnetic compass and gyro compass

### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- A 19 What is the meaning of "compass deviation"?
- A) The difference between the magnetic north and compass north
  - B) The difference between the magnetic north and true north
  - C) The difference between true north and compass north
  - D) The difference between a magnetic compass and a gyro compass
- C 20 What is compass error?
- A) The difference between magnetic north and compass north
  - B) The difference between magnetic north and true north
  - C) The difference between true north and compass north
  - D) The difference between magnetic compass and gyro compass
- A 21 What is the orientation of North on a map?
- A) Up
  - B) Down
  - C) Left
  - D) Right
- C 22 Which of the following factors has no effect on a magnetic compass?
- A) Compass deviation
  - B) Magnetic declination
  - C) Vessel Speed
  - D) Magnetized equipment on board the Vessel
- C 23 What is the function of the magnetic compass onboard a vessel?
- A) Measure water depth
  - B) Measure speed through the water
  - C) Indicate vessel heading
  - D) Communication device
- C 24 When the ship's compass shows a heading of 000 degrees, The vessel is heading?
- A) East
  - B) West
  - C) North
  - D) South
- A 25 When the ship's compass shows a heading of 090 degrees, The vessel is heading?
- A) East
  - B) West
  - C) North
  - D) South
- D 26 When the ship's compass shows a heading of 180 degrees, The vessel is heading?
- A) East
  - B) West
  - C) North
  - D) South
- B 27 When the ship's compass shows a heading of 270 degrees, The vessel is heading?
- A) East
  - B) West
  - C) North
  - D) South

### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- A 28 When the ship's compass shows a heading of 045 degrees, The vessel is heading?  
A) Northeast  
B) Southeast  
C) Southwest  
D) Northwest
- B 29 When the ship's compass shows a heading of 135 degrees, The vessel is heading?  
A) Northeast  
B) Southeast  
C) Southwest  
D) Northwest
- C 30 When the ship's compass shows a heading of 225 degrees, The vessel is heading?  
A) Northeast  
B) Southeast  
C) Southwest  
D) Northwest
- D 31 When the ship's compass shows a heading of 315 degrees, The vessel is heading?  
A) Northeast  
B) Southeast  
C) Southwest  
D) Northwest
- C 32 What is the reciprocal of 090 degrees?  
A) 090 degrees  
B) 180 degrees  
C) 270 degrees  
D) 360 degrees
- D 33 What is the reciprocal course of 060 degrees?  
A) 000 degrees  
B) 060 degrees  
C) 120 degrees  
D) 240 degrees
- A 34 What is the reciprocal of 235 degrees?  
A) 055 degrees  
B) 135 degrees  
C) 220 degrees  
D) 315 degrees
- B 35 A route from point (A) to point (B) has a heading of 300 degrees. What is the reciprocal of the course (B) to (A)?  
A) 090 degrees  
B) 120 degrees  
C) 220 degrees  
D) 300 degrees
- B 36 Which factor may affect the magnetic deviation of a compass?  
A) Navigation chart  
B) The engine  
C) Flower pots  
D) Life Buoy

### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- A 37 Which instrument can be used for orientation?  
A) A magnetic compass  
B) A depth sounder  
C) A speed log  
D) A sounding line
- B 38 Which of the following instruments has the ability to measure distance?  
A) Magnetic compass  
B) Radar  
C) Gyro-compass  
D) Depth sounder
- A 39 The Global Positioning System (GPS) is principally used to determine what on a vessel's  
A) Position  
B) Heading  
C) Speed  
D) Depth
- D 40 Which of the following statements about the Global Positioning system (GPS) is incorrect?  
A) Has high accuracy  
B) Offers Global coverage  
C) Can be used in any vehicle  
D) Has low accuracy at night
- C 41 A vessel's position and course can be plotted over time and connected to form a line. What is this line called?  
A) Longitude lines  
B) Latitude lines  
C) Position lines  
D) Meridians
- C 42 What is the Beam bearing angle in relation to a vessel's heading?  
A) 0 degrees  
B) 45 degrees  
C) 90 degrees  
D) 180 degrees
- C 43 A ships radar detects a seawall inside a range ring of 5NM. What is the range ring called?  
A) Longitude range ring  
B) Latitude range ring  
C) Distance range ring  
D) Meridian range ring
- A 44 What is a compass course 128° magnetic converted to TRUE COURSE applying a variation of 3°W ?  
A) 125°  
B) 128°  
C) 130°  
D) 131°

### 3 Maritime Knowledge

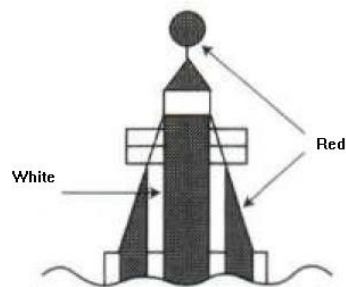
#### 3 2 Aeronautical And Route Signs

- D 45 What is a compass bearing 128° magnetic converted to TRUE applying a variation of 3°E ?  
A) 125°  
B) 128°  
C) 130°  
D) 131°
- A 46 What is the TRUE COURSE of a vessel on course 120° magnetic when applying a variation 3°W?  
A) 117°  
B) 120°  
C) 123°  
D) 124°
- C 47 What is the TRUE COURSE of a vessel heading 120° magnetic when variation is magnetic variation is 3°E?  
A) 117°  
B) 120°  
C) 123°  
D) 124°
- B 48 What is the optimum angular spread when taking a bearing to plot lines of position?  
A) The smaller the angle between two bearings is the better  
B) The closer the bearing angles are to 90° the better  
C) The larger the angle between two bearings is the better  
D) The closer the bearing angles are to 180° the better.
- A 49 Which feature / target should not be used to plot a position line?  
A) Buoy  
B) Breakwater  
C) Independent Reef  
D) Lighthouse
- D 50 What is the characteristic of A lighthouse labeled "ISO"?  
A) Occulting  
B) Flashing  
C) Fixed  
D) Isophase
- A 51 What is the chart symbol used to indicate that a lighthouse has a "fixed light"?  
A) (F)  
B) (F1)  
C) (Oc)  
D) (Al)
- D 52 What is the purpose of setting up navigation buoys and markers?  
A) Define the borders and entrances of channels  
B) Indicate the position of dangerous obstacles  
C) Direct vessels towards safe waters  
D) All of the above

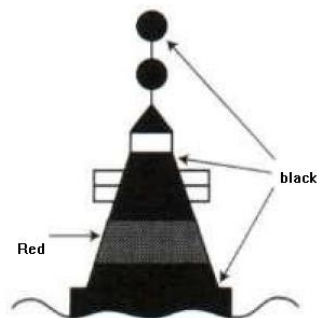
### 3 Maritime Knowledge

#### 3 2 Aeronautical And Route Signs

- D 53 Buoys and markers are used for navigation purposes. Which fact is incorrect?
- A) Buoys and marks are used to define channel borders and entrances
  - B) Indicate the location of dangerous obstacles.
  - C) Direct vessels towards safe waters
  - D) Provide illumination
- D 54 What is the purpose of lateral buoys and Marks?
- A) Define the borders and channel entrance
  - B) Indicate the position of dangerous obstacles
  - C) Indicate safe waters and other special purpose areas
  - D) All of the above
- C 55 What is the IALA buoy (White/Red) shown below?
- A) Port-hand Buoy
  - B) Starboard-hand Buoy
  - C) Safe water marks
  - D) Isolated danger marks



- D 56 What is the IALA buoy (Red/Black) shown below?
- A) Port-hand Buoy
  - B) Starboard-hand Buoy
  - C) Safe water marks
  - D) Isolated danger marks



- A 57 A light buoy on a chart is is labeled FI R(2) 10 sec 160ft 19M. What is the meaning of FI R(2)?
- A) Two successive red flashes
  - B) Occulting Two successive red flashes
  - C) Two successive white flashes
  - D) Occulting two successive white flashes

### **3 Maritime Knowledge**

#### **3 2 Aeronautical And Route Signs**

- B 58 A light buoy on a chart is described as: FI R(2) 10 sec 160ft 19M, What is the meaning of FI R(2) 10 sec?
- A) Group flashing Red 2 bursts lasting 10 seconds
  - B) Group Flashing Red 2 bursts repeating every 10 seconds
  - C) Occulting Red 2 burst lasting 10 seconds
  - D) Occulting Red 2 bursts repeating every 10 seconds
- C 59 A light buoy on a chart is described as Oc W(2) ev. 18 sec 130ft 15M. What is the meaning of "Oc W(2) ev. 18sec"?
- A) Flashing white 2 bursts 18 seconds each
  - B) Group Flashing white 2 successive bursts repeating every 18 seconds
  - C) Group Occulting, 1 short and 1 long illumination lasting 18 seconds
  - D) Flashing Red 2 times every 18 seconds

## 4 Weather(Marine Facies) Knowledge

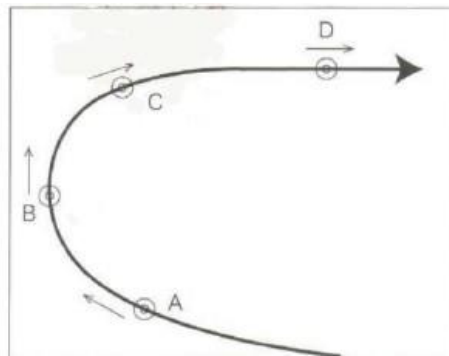
### 4 1 Weather(Marine Facies)

- B 1 According to the Taiwan weather bureau; a Mild typhoon is a typhoon packing wind speeds of how many meters per second?  
A) 17.2 meters per second  
B) 17.2 ~ 32.6 meters per second  
C) 32.6 meters per second  
D) 42 meters per second
- D 2 Taiwan weather bureau issues strong wind advisory warnings when the average wind forces reaches what level on the Beaufort scale?  
A) Force Ten  
B) Force Nine  
C) Force Seven  
D) Force Six
- C 3 The rainy season in Taiwan is known as "Mei Yu" and it brings about what kind of weather system?  
A) Cold front  
B) Warm front  
C) Stationary front  
D) Occluded front
- D 4 A rainfall is based on the collection of rainwater precipitations over a period of how many hours?  
A) 6  
B) 8  
C) 12  
D) 24
- C 5 How many cardinal directions are there on a wind rose to describe from which direction the wind is blowing?  
A) 4 directions  
B) 8 directions  
C) 16 directions  
D) 24 directions
- C 6 The Taiwan weather bureau typhoon land warning goes into effect when wind speeds are in excess of 50 Km/hr (7 on the Beaufort Scale) and are projected to invade the land area of Taiwan and the outlying islands of Kinmen and Matsu in how many hours?  
A) 6  
B) 12  
C) 18  
D) 24
- A 7 When in Taiwan; which telephone hot line can be dialed to obtain the latest weather report?  
A) 166  
B) 168  
C) 169  
D) 120
- C 8 Which of the following statements regarding tides are incorrect?  
A) If a high tide (or low tide) happens twice in the same day, the tide height should be the same.  
B) During times where high or low tides happen twice in a row, the time between each event is not always the same  
C) It is possible for high tides and low tides to only happen once a day  
D) The tide range between high tide and low tide is the most pronounced during a new moon.

## 4 Weather (Marine Facies) Knowledge

### 4 1 Weather (Marine Facies)

- A 9 During which season is fog most prominent in Taiwan?  
 A) Spring  
 B) Summer  
 C) Autumn  
 D) Winter
- D 10 What are the visible weather pattern characteristics of a cold front?  
 A) Fair to Excellent  
 B) Shifts very quickly from bad to fair  
 C) Mainly Mild  
 D) Moderate to severe with poor visibility
- A 11 The picture below shows the path of a low pressure typhoon in the Pacific Ocean. The wind direction changes slightly before and after the typhoon passes at points (A), (B), (C) and (D). What is the general wind direction before and after the typhoon passes?  
 A) At (A) Before: NE, After: SW.  
 B) At (B) Before: S, After: N  
 C) At (C) Before: NW, After: S  
 D) At (D) Before: E, After: W

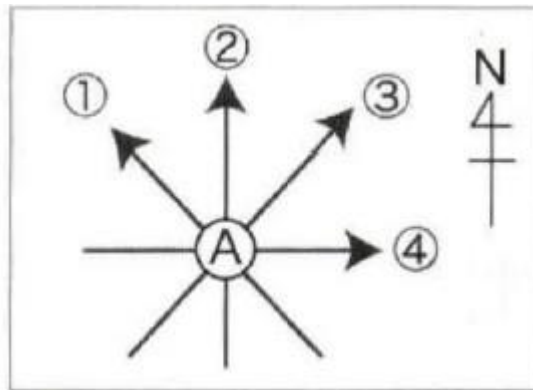


- A 12 Infrared thermal radiation at sunset cools the ground which in turn cools the adjacent air by conduction. When the cooling air reaches the dew point, fog thus formed is known as?  
 A) Radiation fog  
 B) Advection fog  
 C) Evaporation fog  
 D) Freezing fog
- C 13 When visibility is reduced to under 1000 meters in meteorological practice it is called what?  
 A) Mist  
 B) Frost  
 C) Fog  
 D) Smog
- B 14 Due to the temperature difference between land and sea, a thermodynamic cycle is generated causing the air over land to rise and the cooler ocean air to flow over land. What is the name given to this air flow?  
 A) Land Breeze  
 B) Sea Breeze  
 C) Mountain Breeze  
 D) Valley Breeze

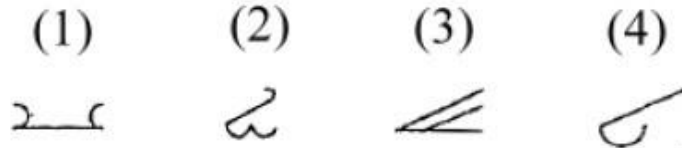
## 4 Weather (Marine Facies) Knowledge

### 4 1 Weather (Marine Facies)

- B 15 The picture below represents a typhoon passing through point A with arrows o1, o2, o3 and o4 indicating its possible paths. Which of following combination of path taken and resulting wind direction is correct?
- A) Path (1): S to N  
 B) Path (2): E to W  
 C) Path (3): NW to SE  
 D) Path (4): NE to SW



- C 16 What is the symbol for "Altostratus" clouds cloud on a weather map?
- A) Symbol (1)  
 B) Symbol (2)  
 C) Symbol (3)  
 D) Symbol (4)

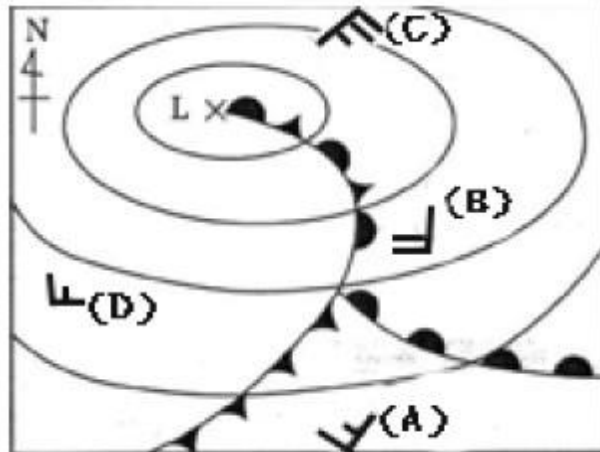


- C 17 Which statement fails to characterize A typhoon forming in the northern hemisphere?
- A) The projected path follows a westerly or northwesterly direction  
 B) Temperature rises along the projected path while pressure drops  
 C) The left semicircle of the typhoon path has heavier wind and rain than the right semicircle  
 D) The eye (center) of the typhoon has visible blue sky and is clear of wind and rain
- B 18 A cloud characterized by a generally uniform gray to bluish-green sheet or layer that can sometimes be streaky but generally covers the whole sky densely is called what?
- A) Altocumulus  
 B) Altostratus  
 C) Stratocumulus  
 D) Nimbostratus
- D 19 What is a multi-level, gray, often dark, amorphous, nearly uniform cloud that usually produces continuous rain, snow, or sleet without lightning or thunder is called what?
- A) Altocumulus  
 B) Altostratus  
 C) Stratocumulus  
 D) Nimbostratus

## 4 Weather (Marine Facies) Knowledge

### 4 1 Weather (Marine Facies)

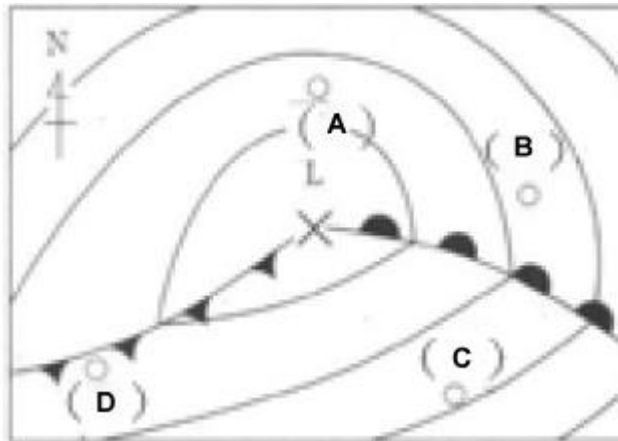
- A 20 In winter, the current flows through the East coast of Taiwan. In winter, the flow rate is stronger than that in summer. What is this current called?
- A) Kuroshio
  - B) Cold wave
  - C) East tide
  - D) Winter tide
- C 21 Which of the following parameters cannot be determined by using a weather map?
- A) High or low pressure fronts
  - B) The type and position of fronts
  - C) Sea temperature or current direction
  - D) Wind direction or wind speed
- C 22 The following picture shows part of a weather map with wind direction and intensity as shown at Four locations (A), (B), (C) and (D). Which wind marker out of the Four shown is the correct one?
- A) At (A) Southwest wind, wind speed 15 knots
  - B) At (B) South-southwest wind, wind speed 20 knots
  - C) At (C) Northwest wind, wind speed 25 knots
  - D) At (D) Westerly wind, wind speed 15 knots



## 4 Weather(Marine Facies) Knowledge

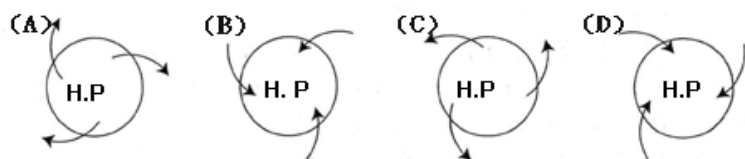
### 4 1 Weather(Marine Facies)

- D 23 Where on the map is the wind with the strongest intensity with respect to point (A), (B), (C) and (D)?
- A) Strongest at point (A)
  - B) Strongest at point (B)
  - C) Strongest at point (C)
  - D) Strongest at point (D)



- C 24 Statement (1): On a weather map, places that have a higher pressure than its surrounding area is a high pressure area. Places that have a lower pressure than its surrounding area is a low pressure area. These areas are circled by isobars and are called high pressure and low pressure respectively. Statement (2) A regular high pressure area creates downdraft resulting in good weather. Conversely, a regular low pressure area creates updraft causing clouds to form and the weather to turn bad. Which of the following descriptions regarding the above two statements is correct?
- A) Statement (1) is correct
  - B) Statement (2) is correct
  - C) Both statement are correct
  - D) Both statement are incorrect

- A 25 One of the Four illustrations below represent a typical high pressure system (H.P) in the Northern hemisphere about Taiwan. The arrows represent the air flow around the high pressure center. Which illustration is correct?
- A) Figure (A)
  - B) Figure (B)
  - C) Figure (C)
  - D) Figure (D)



## 4 Weather(Marine Facies) Knowledge

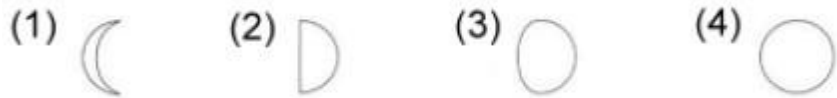
### 4 1 Weather(Marine Facies)

- B 26 What choice of word should be used in between the parenthesis () to complete this statement; "In the northern hemisphere, the clockwise rotation of the (?) produced by the high pressure center is dry and the weather is generally good"?
- A) Updraft
  - B) Air flow
  - C) Jet flow
  - D) Random flow
- C 27 Which fact is incorrect when describing weather changes caused by the passage of a warm front?
- A) Cloudy skies;
  - B) Patchy rain;
  - C) Frequent strong winds;
  - D) Temperature rises
- B 28 Which type of weather front is responsible for producing strong winds or thunderstorms?
- A) Warm front
  - B) Cold front
  - C) Stationary front
  - D) Occluded front
- D 29 Which statement is incorrect with respect to our understanding of land and sea breeze?
- A) Sea and land breeze alternate over the coastline
  - B) When Land and sea breeze start to alternate, the breeze dies down.
  - C) The coastal breeze is caused by the difference in sea and land temperature
  - D) The breeze blows from land to sea during the day and from sea to land during the night
- D 30 Which of the following 4 statements is incorrect with reference to Wind terminology?
- A) Wind direction refers to the direction in which the wind blows
  - B) Wind speed is the average wind speed measured over a period of ten minutes
  - C) Peak wind speed measured during a gust is the Maximum instantaneous wind speed
  - D) Wind strength is divided on an international scale of 0~10
- D 31 Which celestial body is responsible for the tidal phenomenon experienced on earth?
- A) Mercury
  - B) Venus
  - C) Mars
  - D) Moon
- D 32 Tide is caused by the gravitational pull exerted by the moon on the surface of the oceans, causing the surface to rise and fall about every?
- A) 4 hours
  - B) 6 hours
  - C) 8 hours
  - D) 12 hours

## 4 Weather(Marine Facies) Knowledge

### 4 1 Weather(Marine Facies)

- D 33 The illustration below represent the four phases of the moon. During which phase of the moon produces the largest tidal range?
- A) Figure (1)
  - B) Figure (2)
  - C) Figure (3)
  - D) Figure (4)



- D 34 Which of the following statement is inconsistent with our understanding of Tidal flow?
- A) It is hard to judge the tidal range when at sea
  - B) The largest tidal range occurs during the new moon especially during the spring equinox.
  - C) The tidal range can be easily observed at the entrance of harbors and waterways.
  - D) When the tidal current flows north, northerly winds blow stronger, and the flow rate is faster
- C 35 Which of the Four statements is incorrect with respect to our understanding of tidal flow?
- A) The periodic flow of seawater caused by the change of tide is called the tidal current.
  - B) The flow rate is fastest on the day the tidal range is at its largest
  - C) The flow rate is at its slowest at the entrance of harbors and waterways then when at sea
  - D) The tidal current follows the direction of the tidal flow
- B 36 How many times does a tide rises and falls in a day?
- A) Once
  - B) Twice
  - C) Three times
  - D) Four times
- B 37 Dense isobars on a weather map indicate that the local winds are?
- A) Weaker
  - B) Stronger
  - C) Stable
  - D) None of the above
- A 38 Denser isobars on a weather map predict stronger winds and what else?
- A) Bigger swells
  - B) Smaller swells
  - C) Stable swells
  - D) None of the above
- B 39 When isobars are joined together to represent areas of equal pressure and the middle circle ends with the lowest isobar value, the middle circle represents an area of
- A) High pressure?
  - B) Low pressure ?
  - C) Cold air mass ?
  - D) Warm air mass?

## 4 Weather(Marine Facies) Knowledge

### 4 1 Weather(Marine Facies)

- A 40 When the center of surface weather map has a center of high pressure and a low outer pressure, the weather system is defined as being a system of?  
A) High pressure?  
B) Low pressure?  
C) Cold air mass?  
D) Hot air mass?
- B 41 The Beaufort scale characterizes a gale (mild typhoon) when its intensity on the scale are between which values?  
A) 5-7  
B) 8-11  
C) 12-15  
D) 16 and above
- B 42 What is the sea-state given on the Beaufort scale when moderate waves take a more pronounced long form with many white caps forming with chances of some spray?  
A) Sea state 6  
B) Sea state 5  
C) Sea state 4  
D) Sea state 3
- C 43 What is the sea state given on the Beaufort scale when there are Large wavelets; crests begin to break; foam of glassy appearance and perhaps scattered white crests?  
A) Sea state 5  
B) Sea state 4  
C) Sea state 3  
D) Sea state 2
- C 44 During which period of the year are typhoons most prevalent in Taiwan?  
A) January to March  
B) April to June  
C) July to September  
D) October to December
- A 45 According to Buys Ballot law, when a person in the Northern hemisphere stands face to the wind; The center of a depression would be located on which side of the observer?  
A) Right hand side  
B) Right hand side  
C) Directly ahead  
D) Directly behind
- A 46 In what direction does the wind blow when a typhoon approaches Taiwan waters?  
A) Counterclockwise  
B) Clockwise  
C) Change at any time  
D) Change with location

## 4 Weather(Marine Facies) Knowledge

### 4 1 Weather(Marine Facies)

- A 47 When you are sailing within a typhoon radius and you determine that the wind is veering right; where is your vessel located in relation to the typhoon?
- A) Within the dangerous semicircle
  - B) Relatively safe quadrant
  - C) Within the typhoon eye
  - D) Navigable semi circle
- A 48 The Taiwan weather bureau classifies typhoon into categories based on wind speed measured near the center. How many typhoon categories are there?
- A) Three
  - B) Four
  - C) Five
  - D) Six
- B 49 According to the Taiwan central weather bureau a tropical depression is a storm where wind speed near the center is between which values? (m/Sec = Meters per second)
- A) 14-33 m/sec
  - B) 34-63 m/sec
  - C) 64-99 m/sec
  - D) 100 m/sec or more
- C 50 According to the Taiwan central weather bureau a Typhoon of moderate strength is a storm where wind speed near the center is between which values?
- A) 14-33 knots
  - B) 34-63 knots
  - C) 64-99 knots
  - D) 100 knots or more
- D 51 According to the Taiwan Central Weather Bureau classification a strong typhoon is a storm where maximum wind speed near the center is between which values?
- A) 14-33 knots
  - B) 34-63 knots
  - C) 64-99 knots
  - D) 100 knots or more
- D 52 When the Taiwan Central Weather Bureau forecasts a category 7 typhoon approaching within a 100 Km radius from Taiwan, Kinmen and Matsu. How many hours ahead of the approaching storm is a typhoon sea warning issued?
- A) 6 hours
  - B) 12 hours
  - C) 18 hours
  - D) 24 hours
- C 53 When the Taiwan Central Weather Bureau forecasts a category 7 typhoon is to invade Taiwan, Kinmen and Matsu. How many hours ahead of the approaching storm is a typhoon sea warning issued?
- A) 6 hours
  - B) 12 hours
  - C) 18 hours
  - D) 24 hours

## 4 Weather(Marine Facies) Knowledge

### 4 1 Weather(Marine Facies)

- C 54 What is the International standard unit for reporting barometric pressure?  
A) mbar (millibars)  
B) Bar (bar)  
C) Hpa (hectopascal)  
D) Pa (Pascal)
- C 55 What is the standard atmospheric pressure at sea level?  
A) 1000 mbar  
B) 1000 bar  
C) 1013 kPa  
D) 1013 Pa
- A 56 The Atmospheric pressure value announced for a location is 1025 Hpa. This is considered to be within which range?  
A) High pressure range  
B) Low pressure range  
C) Cold front  
D) Warm front
- B 57 The pressure value announced for a location is 1000 Hpa. This is considered to be within which range?  
A) High pressure range  
B) Low pressure range  
C) Cold front  
D) Warm front
- B 58 The Taiwan central weather bureau added a strong wind report to the daily weather forecast. "The strong special report" is issued when wind speeds are forecast to reach which level on the beaufort scale?  
A) Level 3 or more  
B) Level 6 or more  
C) Level 8  
D) Level 10
- A 59 The Taiwan central weather bureau issues torrential rain warning when the accumulated rainfall in 3 hours exceeds how many millimeters?  
A) 80 millimeters  
B) 100 millimeters  
C) 130 millimeters  
D) 160 millimeters
- B 60 The Taiwan Central Weather bureau classifies a "strong" wind gust when the difference between the average wind speed and maximum instantaneous wind speed exceeds which value?  
A) 5 m/sec  
B) 10 m/sec  
C) 15 m/sec  
D) 20 m/sec
- B 61 What is the Taiwan Central Weather Bureau Toll Free number for Mandarin speaking services?  
A) 168  
B) 166  
C) 165  
D) 169

#### 4 Weather(Marine Facies) Knowledge

##### 4 1 Weather(Marine Facies)

- A 62 When does the Taiwan rainy season known as "Mei-Yu" start?  
A) Late spring and early summer  
B) Winter  
C) Late autumn and early winter  
D) All year round
- C 63 What is the prevailing wind trend during winter months in Taiwan?  
A) Southeast wind  
B) Southwest wind  
C) Northeast wind  
D) South wind
- B 64 What is the prevailing wind trend during summer months in Taiwan?  
A) Southeast wind  
B) Southwest wind  
C) Northeast wind  
D) North wind
- B 65 The momentary stagnation of the tidal stream near high water and low water is called what?  
A) High tide  
B) Slack tide  
C) Low tide  
D) Tidal range
- D 66 What is the name given to the water height difference between high water and low water tides?  
A) High water  
B) Slack water  
C) Low water  
D) Tidal range
- A 67 What is the tidal range amplitude during spring tide when the moon is at its closest from the earth?  
A) Maximum  
B) Minimum  
C) Unchanged  
D) Varies with location
- B 68 What is the tidal range amplitude during neap tide when the moon is farthest from the earth?  
A) Maximum  
B) Minimum  
C) Unchanged  
D) Varies with location
- A 69 What is the tide that occurs between the new moon and the full moon (1st and 15th lunar calendars) called?  
A) Spring tide  
B) Neap tide  
C) Slack tide  
D) Low tide

## 4 Weather(Marine Facies) Knowledge

### 4 1 Weather(Marine Facies)

- B 70 A tide generated when the moon is in the first quarter or second quarter position is called what? (lunar calendar July 22nd, when the moon and sun are at 90 degrees to each other)
- A) Spring tide
  - B) Neap tide
  - C) Low Tide
  - D) High tide
- A 71 A tidal stream is characterized by one high tide and one low tide in 24 hours is know as what?
- A) Diurnal tide
  - B) Semi diurnal tide
  - C) Mixed tide
  - D) Slack tide
- B 72 A tidal stream is characterized by two high tides and two low tides in 24 hours is known as what?
- A) Diurnal tide
  - B) Semi diurnal tide
  - C) Mixed tide
  - D) Slack tide
- C 73 What is the tidal stream pattern for the Northern coast of Taiwan?
- A) Diurnal tide
  - B) Semi diurnal tide
  - C) Mixed tide
  - D) Slack tide
- B 74 The North Equatorial Current flows clockwise through the Philippine Islands and the East coast of Taiwan and is known by which name?
- A) Oyashio current
  - B) Kuroshio current
  - C) Alaska current
  - D) Australian current
- A 75 When a cold air mass comes into contact with a warm air mass pushing it forward, The moving interface is called what?
- A) Cold front
  - B) Warm front
  - C) Occluded front
  - D) Stationary front
- B 76 When a warm air mass comes into contact with a cool air mass pushing it forward, The moving interface is called what?
- A) Cold front
  - B) Warm front
  - C) Occluded front
  - D) Stationary front
- D 77 When cold front and a warm front of equivalent mass the interface is stalled alternating between rain and clouds. The stalled interface is called what?
- A) Cold front
  - B) Warm front
  - C) Occluded front
  - D) Stationary front.

- B 78 In the Northern Hemisphere the air flow direction of a low pressure area is defined by which rotation?
- A) Clockwise rotation
  - B) counterclockwise rotation
  - C) Oscillating rotation
  - D) Random rotation
- A 79 What is the direction of the airflow in the high pressure range of the Northern Hemisphere?
- A) Clockwise rotation
  - B) Counterclockwise rotation
  - C) Oscillating
  - D) Random
- C 80 what is the maximum wind speed of the moderate typhoon near the center on the Beaufort wind scale?
- A) 5-7
  - B) 8-11
  - C) 12-15
  - D) 16 or above
- D 81 What is the maximum wind speed near the center of the strong typhoon on the Beaufort wind scale?
- A) 5-7
  - B) 8-11
  - C) 12-15
  - D) 16 or above
- B 82 In the Northern hemisphere Buys Ballot's law states that if a person stands with his back to the wind the low pressure center is on which side of the observer?
- A) Right hand side
  - B) Left hand side
  - C) Right front
  - D) Directly behind
- A 83 Fog in Taiwan is most prevalent during which season?
- A) Winter and Spring
  - B) Spring and Summer
  - C) Summer and Autumn
  - D) Autumn and Winter
- C 84 What is the time interval at which The Taiwan Central weather Bureau renews typhoon warnings?
- A) Every one hour
  - B) Every two hours
  - C) Every three hours
  - D) Every four hours

#### 4 Weather(Marine Facies) Knowledge

##### 4 1 Weather(Marine Facies)

- D 85 The tide table for a major port on July 17 is as shown below. The tidal time difference at a minor port is +00h 25 min. The tide to height ratio for the secondary port is 1.23. What is the estimated high water mark for the minor port?
- A) The morning low water mark is 68 cm  
 B) The afternoon high tide is at 22:27  
 C) The tidal range between high and low water mark is 146 cm  
 D) Estimated high water mark is about 235 cm

July			
	Time		Tide
	h	m	cm
17	02	16	191
	09	24	68
	16	39	187
	22	02	140

- A 86 The tidal pattern of a specific channel on May 25th is shown below (+ is eastwards, - is westwards). Which of the following statement is incorrect?
- A) The tide changes from eastwards to westwards at 06:21 and 18:01  
 B) The eastward tide is strongest at 21:39  
 C) High tide in the morning lasts from 00:14 to 06:21  
 D) The westward tide is strongest at 14:55

5 月					
	平潮 Slack		最大 Maximum		
	h	m	h	m	kn
25	00	14	03	02	- 2.1
	06	21	09	18	+1.5
	11	53	14	55	- 2.2
	18	01	21	39	+2.6

- B 87 What is the meaning of "Upwind"?
- A) The direction toward which the Wind is going  
 B) The direction from which the wind is coming  
 C) The direction toward which the current is going  
 D) The direction from which the current coming

#### 4 Weather(Marine Facies) Knowledge

##### 4 1 Weather(Marine Facies)

- A 88 What is the meaning of “downwind”?
- A) The direction towards which the wing is going
  - B) The direction from which the wind is coming
  - C) The direction towards which the current is going
  - D) The direction from which the current is coming
- C 89 The Taiwan central weather bureau forecasts wave conditions around Taiwan using which methodology?
- A) The maximum wave height observed in one hour
  - B) The maximum wave height observed in 3 hours
  - C) The mean wave height (trough to crest) of the highest third of the waves ( $H_{1/3}$ )
  - D) The mean wave height (trough to crest) of the highest one tenth of the waves ( $H_{1/10}$ )
- B 90 After observing 1000 waves (approximately 1-2 hours of observation), the maximum observed wave height is how many times higher than the significant wave height?
- A) 1.5
  - B) 2
  - C) 2.5
  - D) 3

## 5 Turbine And Engine Knowledge

### 5 1 Engines

- B 1 What is the primary fuel types used with internal combustion engines to power small crafts?  
A) Diesel and gas turbines  
B) Gasoline and diesel  
C) Gasoline and gas turbine  
D) Rotary internal combustion engines
- C 2 Which of the following accounts for the largest proportion of the Heat lost by an internal combustion engine?  
A) Cooling water  
B) Incomplete combustion  
C) Exhaust gases  
D) Internal friction
- C 3 Which exhaust smoke color is considered normal for an internal combustion engine?  
A) Grayish  
B) Brownish  
C) Blueish  
D) Black
- D 4 What is the most likely reason for exhaust smoke when the engine is warming up?  
A) Advance Timing  
B) Retard timing  
C) Lean Gas mixture  
D) Rich Gas mixture
- B 5 What is the most likely reason for black exhaust smoke coming out of a diesel engine?  
A) Retarded fuel injection  
B) Poor fuel combustion  
C) High fuel injection pressure  
D) Moisture in fuel
- A 6 In what order the Four cycle of an internal combustion engine must occur for the engine to run successfully?  
A) Intake, compression, expansion, exhaust  
B) Intake, compression, exhaust, expansion  
C) Intake, exhaust, expansion, compression  
D) Intake, expansion, exhaust, compression
- B 7 How many rotations does a crank shaft must make to achieve a full power cycle?  
A) 1 rotation  
B) 2 rotations  
C) 3 rotations  
D) 4 rotations
- D 8 Which cycle is inconsistent with a Four Stroke internal combustion engine?  
A) Expansion  
B) Intake  
C) Compression  
D) Ignition

## 5 Turbine And Engine Knowledge

### 5 1 Engines

- B 9 How many rotations does a crank shaft of a two stroke 3 cylinder engine makes during one full combustion cycle?
- A) Two rotations
  - B) Three rotations
  - C) Four rotations
  - D) Five rotations

- D 10 Where is the four stroke diesel engine superior to a two stroke diesel engine of the same displacement and power output?
- A) Lower power output for the same displacement and RPM
  - B) Higher maintenance and repair cost
  - C) Low torque output
  - D) Lower fuel consumption for the same output

- A 11 What is the part of the engine indicated by the arrow below?
- A) Piston
  - B) Piston Ring
  - C) Connecting Rod
  - D) Piston Tip



- D 12 What is the part of the engine indicated by the arrow below?
- A) Piston
  - B) Piston Ring
  - C) Connecting Rod
  - D) Piston skirt



- C 13 What is the part of the engine indicated by the arrow below?
- A) Piston
  - B) Piston Ring
  - C) Connecting Rod
  - D) Piston skirt



## 5 Turbine And Engine Knowledge

### 5 1 Engines

B 14 What is the part of the engine indicated by the arrow below?

- A) Piston
- B) Crankshaft
- C) Connecting rod
- D) Piston skirt



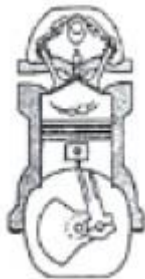
A 15 Which part of the combustion cycle is shown on the picture?

- A) Intake
- B) Exhaust
- C) Power
- D) Compression



C 16 Which part of the combustion cycle is shown on the picture below?

- A) Intake
- B) Exhaust
- C) Power
- D) Compression



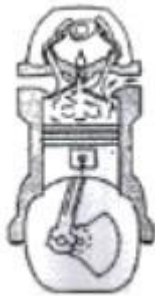
## 5 Turbine And Engine Knowledge

### 5 1 Engines

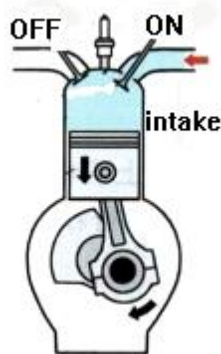
- D 17 Which part of the combustion cycle is shown on the picture?
- A) Intake
  - B) Exhaust
  - C) Power
  - D) Compression



- B 18 Which part of the combustion cycle is shown on the picture?
- A) Intake
  - B) Exhaust
  - C) Power
  - D) Compression



- A 19 Which part of the combustion cycle is shown on the picture below?
- A) Intake
  - B) Exhaust
  - C) Power
  - D) Compression

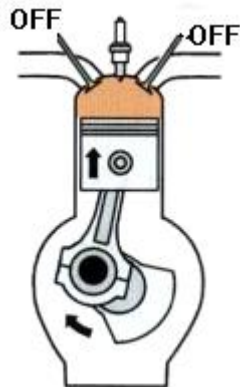


## 5 Turbine And Engine Knowledge

### 5 1 Engines

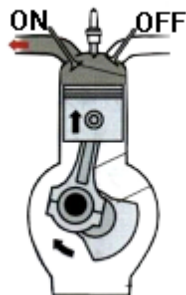
D 20 Which part of the combustion cycle is shown on the picture below?

- A) Intake
- B) Exhaust
- C) Power
- D) Compression



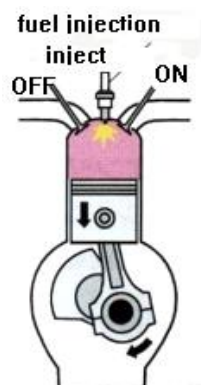
B 21 Which part of the combustion cycle is shown on the picture below?

- A) Intake
- B) Exhaust
- C) Power
- D) Compression



C 22 Which part of the combustion cycle is shown in the illustration below?

- A) Intake
- B) Exhaust
- C) Power
- D) Compression

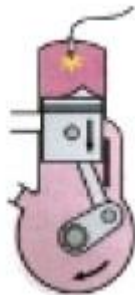


## 5 Turbine And Engine Knowledge

### 5 1 Engines

C 23 Which sequence of the two stroke combustion cycle is represented by the picture below?

- A) Secondary compression - intake
- B) Exhaust - Transfer
- C) Expansion - Primary compression
- D) Transfer - Exhaust



D 24 Which sequence of the two stroke combustion cycle does this picture represent?

- A) Secondary compression - intake
- B) Exhaust - Transfer
- C) Expansion - primary compression
- D) Intake- Exhaust



B 25 Which sequence of a two stroke combustion cycle does the picture below represent?

- A) Secondary compression - intake
- B) Exhaust - Transfer
- C) Expansion) - primary compression
- D) Transfer - exhaust

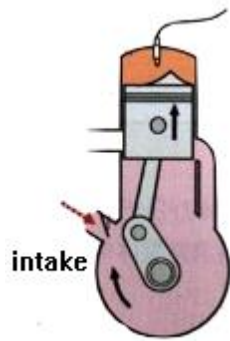


## 5 Turbine And Engine Knowledge

### 5 1 Engines

- A 26 Which sequence of the two stroke combustion cycle does the picture represent?

A) Secondary compression - Intake  
B) Exhaust - Transfer  
C) Expansion - Primary compression  
D) Transfer - Exhaust



- D 27 By which means is the fuel in a diesel engine ignited after the compression stroke?

A) High voltage spark  
B) Fire ball  
C) Electric spark  
D) Compression heat

- A 28 At which point of the cylinder travel is diesel fuel injected?

A) Before the top dead center  
B) After the top dead center  
C) Before the bottom dead point  
D) After the bottom dead center

- B 29 Diesel and gasoline engines of the same horsepower do not consume fuel at the same rate. Which engine has the lowest fuel consumption rate?

A) Diesel engine Has the highest fuel consumption rate  
B) Diesel engine Has the lowest fuel consumption rate  
C) Gasoline engine Has the lowest consumption rate  
D) Both engines have the same fuel consumption rate

## 5 Turbine And Engine Knowledge

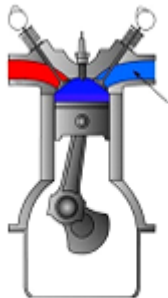
### 5 1 Engines

- A 30 What is the meaning of the engine's horsepower?  
A) Work done per unit of time  
B) Engine revolutions per hour  
C) Fuel consumption rate per hour  
D) Heat released per unit of time
- C 31 What is the main function of the piston ring?  
A) Prevent oil from rising  
B) Increase cylinder pressure  
C) Lubricate the cylinder wall and scavenge oil  
D) Cools the cylinder and prevent overheating
- C 32 Which statement is incorrect about the capability of an air filter?  
A) Filter particles entering the air intake  
B) Muffles the sound of air rushing through the air intake  
C) Increases volumetric efficiency of the engine  
D) Filters blow back particles that may scratch the cylinder walls
- A 33 What is the function of the governor on diesel engine?  
A) Controls the quantity of fuel injected into the cylinders  
B) Control the injection speed  
C) Control the injection pressure  
D) Control the injection timing
- B 34 When the oil is mixed with water, It turns into a thick whitish solution. What is the name given to this reaction?  
A) Oxidation  
B) Emulsification  
C) Dilution  
D) Carbonation
- C 35 Which of the following cooling methods works best for an internal combustion engine?  
A) Air cooling  
B) Oil cooling  
C) Water cooling  
D) Natural cooling
- A 36 What are the advantages of a water-cooling over air-cooling?  
A) Higher thermal efficiency  
B) Easy of maintenance  
C) Shorter engine warm up time  
D) Improved corrosion resistance
- C 37 AC current is converted to DC current using?  
A) Inverter  
B) Transformer  
C) Rectifier  
D) Resonator
- C 38 What does the oil pressure gauge indicate?  
A) Pressure in the oil sump  
B) Oil level in the oil sump  
C) Oil pressure in the lubricating circuit  
D) Oil delivered to the oil pump

## 5 Turbine And Engine Knowledge

### 5 1 Engines

- A 39 What is the most important consideration for a battery storage compartment?
- A) Good Ventilation
  - B) Air tightness
  - C) Temperature & humidity control
  - D) Air tightness and temperature control
- C 40 Which statement describing a small diesel engine connecting is incorrect?
- A) A Connecting rod consists of small end, and a big end
  - B) The small end connects to the piston
  - C) The large end connects to the camshaft
  - D) The large end connects to the crankshaft
- A 41 Which principle must be applied to connect two batteries of the same capacity for doubling the amperage?
- A) Parallel connection
  - B) In Series connections
  - C) Series-parallel
  - D) Resonance
- C 42 The picture below depicts a Four stroke internal combustion engine. Which component is the arrow pointing to?
- A) Exhaust port
  - B) Scavenging port
  - C) Fuel/ air intake port
  - D) Exhausted gas



**exhaust/intake  
expand/compress**

- D 43 The picture below depicts a Four stroke internal combustion engine. What is it that the arrow is pointing to?
- A) Exhaust port
  - B) Scavenging port
  - C) Fuel/ air intake port
  - D) Exhaust gases



**exhaust/intake  
expand/compress**

## 5 Turbine And Engine Knowledge

### 5 1 Engines

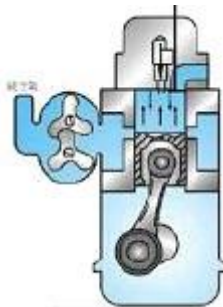
- A 44 Which sequence of the four stroke combustion cycle is shown on the illustration below?

- A) Intake stroke
- B) Compression stroke
- C) Power stroke
- D) Exhaust stroke



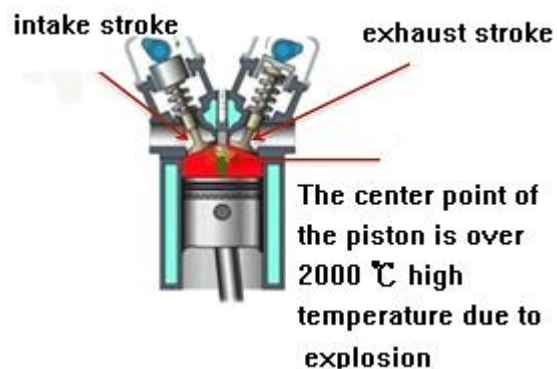
- B 45 At which stage of of the combustion cycle this two stroke engine is at?

- A) Intake stroke
- B) Compression stroke
- C) Power stroke
- D) Exhaust stroke



- C 46 The 4 stroke gasoline engine is at what stage of the combustion cycle?

- A) Intake stroke
- B) Compression stroke
- C) Power stroke
- D) Exhaust stroke

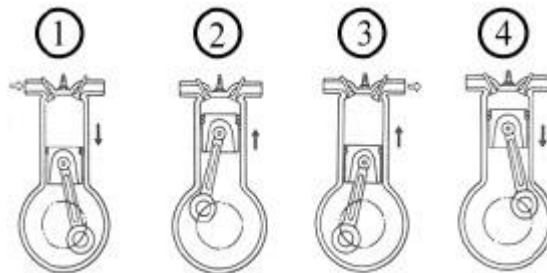


## 5 Turbine And Engine Knowledge

### 5 1 Engines

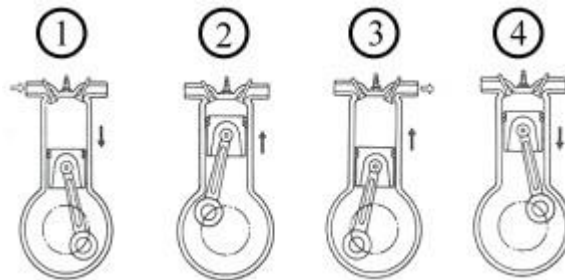
- C 47 Which of the following figures is the exhaust stroke of a four-stroke gasoline engine?

A) Figure (1)  
B) Figure (2)  
C) Figure (3)  
D) Figure (4)



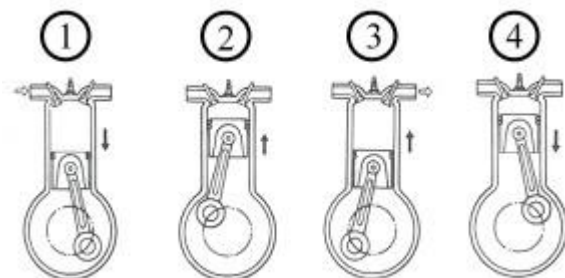
- B 48 Which of the following figures shows the compression stroke of this four-stroke gasoline engine?

A) Figure (1)  
B) Figure (2)  
C) Figure (3)  
D) Figure (4)



- D 49 Which figure below shows the power stroke for this four stroke gasoline engine?

A) Figure (1)  
B) Figure (2)  
C) Figure (3)  
D) Figure (4)

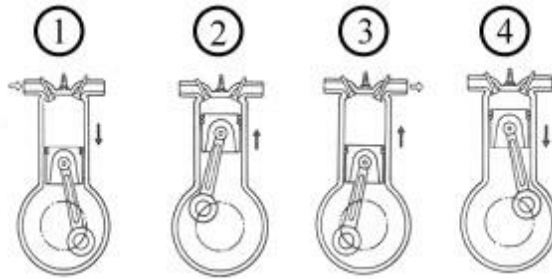


## 5 Turbine And Engine Knowledge

### 5 1 Engines

A 50 Which picture below shows the intake stroke for the four stroke gasoline engine?

- A) Figure (1)
- B) Figure (2)
- C) Figure (3)
- D) Figure (4)



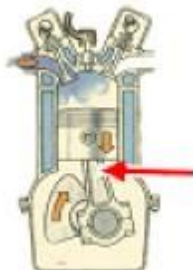
A 51 To which part of this Four stroke gasoline engine is the arrow pointing to?

- A) Cylinder head
- B) Cylinder block
- C) Connecting rod
- D) Intake valve



C 52 To which part of this four stroke gasoline engine is the arrow point to?

- A) Cylinder head
- B) Cylinder block
- C) Connecting rod
- D) Intake valve

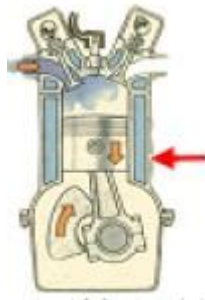


## 5 Turbine And Engine Knowledge

### 5 1 Engines

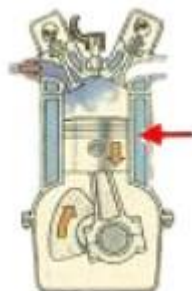
B 53 To which part of this four stroke gasoline engine is the arrow pointing to?

- A) Cylinder head
- B) Cylinder block
- C) Connecting rod
- D) Intake valve



D 54 To which part of this four stroke engine is the arrow pointing to?

- A) Cylinder head
- B) Cylinder block
- C) Connecting rod
- D) Engine coolant



D 55 Which part of this four stroke gasoline engine is the arrow pointing to?

- A) Cylinder head
- B) Cylinder block
- C) Connecting rod
- D) Intake valve



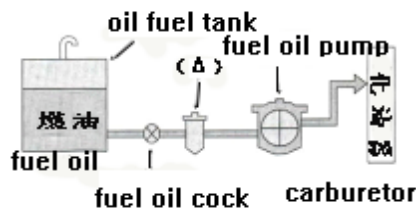
## 5 Turbine And Engine Knowledge

### 5 1 Engines

- C 56 To which part of this four stroke engine is the arrow pointing to?
- A) Cylinder head
  - B) Cylinder block
  - C) Valve spring
  - D) Intake valve



- D 57 The picture below represents a typical flue system for a gasoline engine. What is the function of Item (A)?
- A) Venturi for atomizing the fuel and air mixture
  - B) Fuel line shut off valve
  - C) Fuel lift pump
  - D) Inline fuel filter and water separator



- C 58 By which process does a combustion occur in a diesel engine?
- A) The fuel and air mixture react to generate a spark
  - B) The fuel and air mixture are ignited using a spark
  - C) The atomized fuel ignites by heat and pressure
  - D) The compressed fuel is ignited using injected hot air
- C 59 Which of the four statements below overstates engine oil lubricating properties?
- A) Removes the heat generated by friction
  - B) Reduces friction between moving parts
  - C) Improves the fuel combustion efficiency
  - D) Maintains air tightness between the cylinder and piston

## 5 Turbine And Engine Knowledge

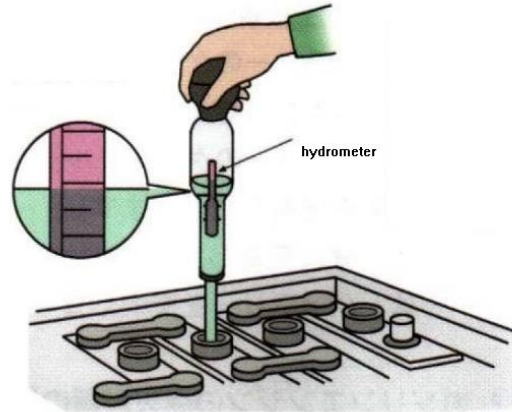
### 5 1 Engines

- D 60 Which engine component is not driven by a V-belt?
  - A) Cooling Sea water pump
  - B) cooling Fresh water pump
  - C) Alternator
  - D) Starting motor
  
- B 61 What is the purpose of a fuel pump on a gasoline engine?
  - A) Atomize the fuel and air mixture
  - B) Deliver fuel to the carburetor / injector at a given pressure
  - C) Control the engine RPM by controlling fuel delivery
  - D) Controls air flow to the carburetor to alter the air fuel mixture
  
- A 62 Which engine part doesn't require lubrication?
  - A) Fuel Oil Nozzle
  - B) Main Bearing
  - C) Camshaft
  - D) Crankshaft

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- A 1 What is the state of charge of an engine starter battery when the hydrometer reading is above 1.28?
- A) Fully charged
  - B) 1/4 discharged
  - C) 1/2 discharged
  - D) Fully discharged



- D 2 What is the depth of discharge of a lead acid battery when the hydrometer reads below 1.16?
- A) Fully charged
  - B) 1/4 discharged
  - C) 1/2 discharged
  - D) Fully discharged
- C 3 What is the depth of charge of a lead-acid battery when the hydrometer value reads 1.22?
- A) Fully charged
  - B) 1/4 discharge
  - C) 1/2 discharge
  - D) Complete discharge
- C 4 What is the state of charge of a lead-acid battery when the hydrometer reading is 1.19?
- A) Fully charged
  - B) 1/4 discharge
  - C) 3/4 discharge
  - D) Complete discharge
- C 5 Which item on this checklist is inconsistent with the engine startup procedure?
- A) Open the fuel tap and sea-cock
  - B) Check Engine oil level
  - C) Open the crankcase cover
  - D) Turn on the battery DC switch
- D 6 What is the best attitude for preparedness and enhanced safety at sea?
- A) Assume that nothing will go wrong?
  - B) Deal with issues on board as they unfold?
  - C) Deal with issues on board at a later time?
  - D) Carry out safety checks before leaving the dock

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- B 7 Which statement is consistent with good engine handling practice?
- A) Minor engine troubles can be handled at the dock
  - B) Monitor the engine gauges regularly for normal operation
  - C) Fast engine acceleration is better
  - D) The engine should be ran at full throttle frequently
- C 8 What is the effect of excess fuel entering the cylinders of an internal combustion engine?
- A) Increased horsepower
  - B) Increased speed
  - C) Black smoke
  - D) Reduced exhaust temperature
- D 9 What is the reason to cause the pressure difference getting bigger between inlet and outlet of lubricating oil filter ?
- A) Oil pump out of order
  - B) Oil quality is inadequate
  - C) Oil temperature is too high
  - D) Oil Filter is clogged
- D 10 What is the overall impact of low oil pressure on engine performance?
- A) The oil temperature rises
  - B) The oil becomes thinner
  - C) Oil seals tend to leak
  - D) Premature engine wear and possible damage to parts.
- D 11 What is the wrong course of action for reducing engine oil temperature when it becomes too hot?
- A) Increase the flow of cooling water
  - B) Reduce Speed
  - C) Increase lubrication oil flow
  - D) Ventilate the engine compartment to dissipate heat
- A 12 What is the best course of action to take when the engine is overheating?
- A) Stop the engine for inspection.
  - B) Slow down and trouble shoot the problem
  - C) Opening the crank case to cool the engine
  - D) Replenish with cold oil and keep sailing
- A 13 What is the best course of action to take when you realize that the engine raw water intake valve is shut?
- A) Reduce speed immediately and open the engine raw water intake valve
  - B) Open the engine raw water intake valve immediately
  - C) If engine is not over heating don't open the raw water intake valve
  - D) Increase cooling water
- A 14 What is the best course of action to take if the engine cooling water temperature is abnormally high?
- A) reduce speed and trouble shoot the issue.
  - B) Pour water over the engine
  - C) Stop the engine and call for help
  - D) Speed up and return to the dock.

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- B 15 What is the best course of action to take to restore electrolyte to a depleted lead acid battery?
- A) Add a diluted solution of sulfuric acid
  - B) Add distilled water
  - C) Add tap water
  - D) Add boiled fresh water
- C 16 What is the best course of action to take when you hear abnormal sounds coming from your engine?
- A) Speed up and return to the dock immediately
  - B) Determine the cause and deal with the trouble accordingly
  - C) Slow down, trouble shoot and evaluate potential consequences
  - D) Keep sailing to avoid making matters worse
- B 17 Which action is the most damaging to a boat engine?
- A) Adequate warm time
  - B) Cold start acceleration
  - C) Slow acceleration
  - D) Slow deceleration after a prolonged run
- C 18 What is the correct practice for engine shut down?
- A) Bring the boat to a halt and shut down the engine.
  - B) Let the engine run for few minutes before shutting down.
  - C) Let the engine idle and shut down after the engine temperature drops.
  - D) Rev the engine for few minutes before shutting down.
- C 19 Which of the following is not the cause of abnormal vibration in the engine?
- A) Abnormal combustion in one of the cylinders.
  - B) Propeller is entangled
  - C) Engine is running too hot
  - D) Propeller blades are deformed
- D 20 Which fact cannot be attributed to an entangled propeller?
- A) Abnormal hull vibration
  - B) Increased exhaust temperature
  - C) Slower engine speed and slower boat speed
  - D) None of the above
- D 21 What is the appropriate course of action to take when the engine's exhaust temperature rises abnormally?
- A) Increase the amount of cooling water
  - B) Reduce air ventilation
  - C) Add oil to the engine
  - D) Reduce engine RPM
- B 22 What is the appropriate course of action to take when the engine starts making noises?
- A) Ignore and keep motoring?
  - B) Stop engine and trouble shoot
  - C) Return to the docks as quickly as possible
  - D) Add more oil to the engine?

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- D 23 Which of the following practices should be avoided when operating an internal combustion engine?
- A) Engines run more efficiently when cold water is supplied for cooling
  - B) Engines run more efficiently when lubricating oil is kept cool
  - C) Engines run more efficiently when fuel is cold
  - D) Fast acceleration /Deceleration can easily damage the engine
- A 24 While sailing up a waterway, your diesel engine busts a fuel injection high pressure pipe. What is the best course of action to take in such a situation?
- A) Slow down, turn off the fuel tank shut off valve, stop and repair.
  - B) Stop and repair immediately
  - C) Continue sailing
  - D) Slow down but keep sailing
- A 25 Which of the following actions is incorrect in the treatment of rags contaminated with engine oil?
- A) Throw the rags overboard.
  - B) Store the rags temporarily in a barrel inside the engine room.
  - C) Burn the rags in a regular incinerator
  - D) Store the rags in a barrel to be processed on shore.
- A 26 What is the correct way for handling oil contaminated bilge water?
- A) Collected the contaminated water in a drum and process at an onshore facility
  - B) Discharged the water overboard
  - C) Collected contaminated water first and discharged overboard when the conditions are right?
  - D) Use chemicals to breakdown and disperse the oil before discharging overboard?
- D 27 Which method should not be used when checking the state of charge of a battery?
- A) Check gravity of battery electrolyte?
  - B) Use a voltmeter
  - C) Use a battery internal resistance tester
  - D) Short circuit the terminals and evaluate spark intensity
- C 28 Which inspection should be carried out on a diesel fuel tank prior to starting the engine(s)?
- A) The exhaust gases and water discharge mixture and oil level
  - B) Fuel line pressure, water discharge and oil level.
  - C) Check for leaks around the fuel line, fuel level and fuel water separator.
  - D) Fuel line pressure, exhaust gases, fuel leaks and oil level.
- D 29 Determine which items on this departure checklist are correct for a power driven vessel? (a) Verify that the fuel level in the primary tank is sufficient for the trip. (b) Verify that the water separating fuel filter is clean
- A) Checklist item (a) is Correct
  - B) Checklist item (b) is Correct
  - C) Both items on the checklist are wrong
  - D) Both items on the checklist are correct

## 5 Turbine And Engine Knowledge

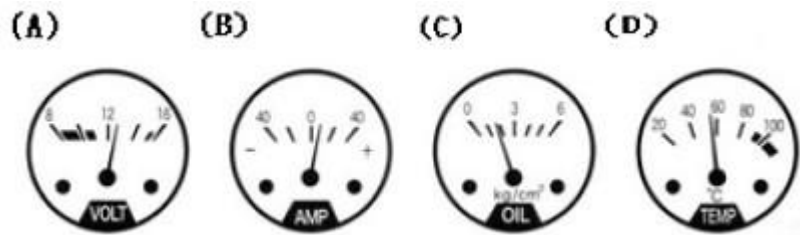
### 5 2 Operation

- C 30 When a raw water strainer is clogged; what action must be take before removing the filter basket for cleaning?
- A) Install the drain Plug
  - B) Turn off the Fuel Cock
  - C) Turn off the Seacock valve
  - D) Turn off Stern tube valve
- D 31 Which statement is incorrect when performing engine oil checks? (a) Engine oil must be checked while engine is running. (b) The engine oil quality is good when it is found to be sticky and milky white in color.
- A) Statement (a) is Correct
  - B) Statement (b) is Correct
  - C) Statements (a) & (b) are correct
  - D) statements (a) & (b) are incorrect
- D 32 Which statement is incorrect when describing the effect of a discharged battery?
- A) The ships lights are Dim
  - B) The horn is not as loud
  - C) The starter won't crank the engine
  - D) The Throttle and shift control feel smoother
- B 33 what is the liquid solution used to replenish a lead acid battery electrolyte?
- A) Potable water
  - B) Distilled water
  - C) Diluted sulfuric acid
  - D) Sea water
- D 34 Judge the correctness of both statements as they relate to a water flooded engine room situation. (a) Open the sea cocks immediately to drain the water out,(b) Locate the water leak and do not take further action. Which statement is correct?
- A) Statement (a) is correct
  - B) Statement (b) is correct
  - C) Both statements are correct
  - D) Both statements are incorrect
- D 35 When calculating the quantity of fuel needed for a voyage, the calculations must consider the following:
- A) Area of navigation
  - B) Length of voyage
  - C) Sea State
  - D) All of the above
- D 36 Which item on this check list is inconsistent with engine pre-start check list?
- A) Engine Cooling water leakage
  - B) Engine Exhaust discharge color
  - C) Engine abnormal vibration
  - D) Engine oil level

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- D 37 Which gauge indicates that the engine is warmed up? Base your answer on the figures below.
- A) Figure (A) Volt dial
  - B) Figure (B) Amp Dial
  - C) Figure (C) Oil dial
  - D) Figure (D) Temp dial



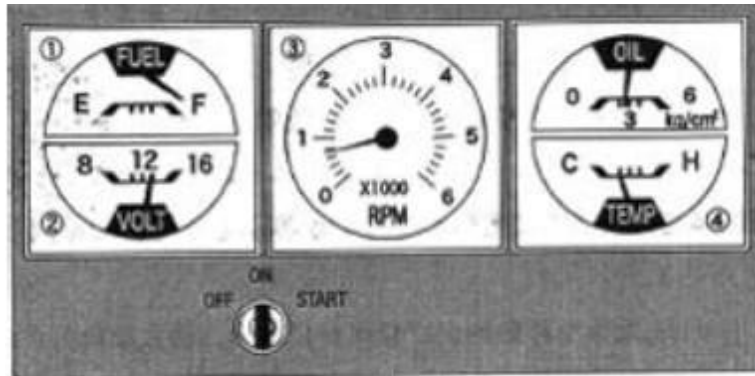
- B 38 Which of the four procedures described below is incorrect when starting and stopping a boat engine?
- A) Before starting; Run the bilge blower to ventilate the engine room
  - B) Before starting; Place the shift lever in reverse
  - C) Before stopping; Let the engine idle for a short time
  - D) After stopping; Shut off the fuel valve and cut off the main power switch
- A 39 Which part of the internal combustion engine has a straight reciproaing motion?
- A) Piston
  - B) Cylinder liner
  - C) Connecting rod
  - D) Crankshaft
- C 40 Which part of the internal combustion engine has an oscillating motion?
- A) Piston
  - B) Cylinder liner
  - C) Connecting rod
  - D) Crankshaft
- D 41 Which part of the internal combustion engine has a rotational motion?
- A) Piston
  - B) Cylinder liner
  - C) Connecting rod
  - D) Crankshaft
- D 42 What is the correct interaction sequence of the Crankshaft(a) piston(b) connecting rod(c) and reduction gear(d) when transforming the thermal energy to kinematic energy produced by an internal combustion engine?
- A) Sequence (a) → (c) → (b) → (d)
  - B) Sequence (b) → (d) → (c) → (a)
  - C) Sequence (a) → (d) → (b) → (c)
  - D) Sequence (b) → (c) → (a) → (d)

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- A 43 Which course of action is inappropriate when your engine develops trouble while at sea?
- A) Stop the engine immediately
  - B) Check the status of the engine control panel for alarms
  - C) Determine the nature of the fault and whether it can be fixed
  - D) Determine your vessel's position

- A 44 The following figures show the instrument panel of a small boat with dials labeled (1),(2),(3) and (4). Which Dial is labeled correctly?
- A) Dial (1) Fuel tank level
  - B) Dial (2) Spark plug current
  - C) Dial (3) Propeller RPM
  - D) Dial (4) Engine oil temperature



- D 45 Based on the engine instrument readout, which of the following cause and effect statement is incorrect?
- A) The fuel tank is full but the fuel gauge reads "Low fuel" Probable cause is a faulty fuel sensor
  - B) The Voltmeter shows a negative value; the probable cause is a loose alternator drive belt
  - C) The Oil pressure gauge reads "Low pressure" The probable cause is insufficient engine oil.
  - D) The Engine Temperature gauge reads "Low Temp" The probable cause is a Blocked cooling raw water inlet
- B 46 What is the best course of action to take should there be the smell of burning coming out of the engine room?
- A) Stop engine
  - B) Reduce engine Speed
  - C) Change oil
  - D) Replenish oil
- D 47 Your Engine has suddenly stopped while under way. What is the most unlikely reason for the sudden loss of propulsion?
- A) Entangled propeller stalling the engine
  - B) Clogged fuel filter(s)
  - C) Overheated Engine
  - D) Worn out shift and throttle cables

## 5 Turbine And Engine Knowledge

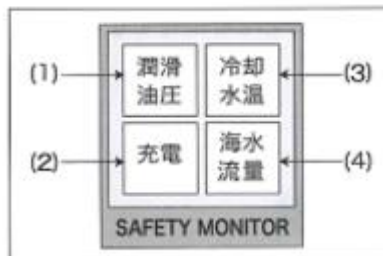
### 5 2 Operation

- C 48 Which of the following statements is unlikely to be the reason for high engine temperature in a seawater cooled engine?
- A) The seawater inlet or seawater filter is clogged
  - B) High ambient temperature raising the temperature inside the engine room
  - C) The circulating water pump V belt is too loose
  - D) Thermostat failure
- C 49 What is the most likely reason for a sudden engine vibration while under way?
- A) High ambient temperature raising the engine room temperature
  - B) Engine running low on oil
  - C) The propeller blades are damaged by an underwater obstacle.
  - D) Worn out reduction gear
- B 50 A vessel going 9 knots consumes 24 liter of fuel per hour. When the speed is increased to 12 knots fuel consumption is 1.5 greater than that at 9 knots. If the vessel was to travel 30 Nm at 12 knots, what would be the additional amount of fuel consumed during that time? Round your answer to the nearest integer.
- A) 8 liters
  - B) 10 liters
  - C) 12 liters
  - D) 14 liters
- D 51 A vessel with a fuel capacity of 70 liters has a fuel consumption of 42 liters running at 20 knots. The vessel also consumes 24 liters of fuel per hour running a 16 knots. What is the best speed and range the vessel can achieve on one fuel tank omitting the effect of wind and tide?
- A) 33 Nm at 16 Knots
  - B) 47 Nm at 20 Knots
  - C) 33 Nm at 20 Knots
  - D) 47 Nm at 16 Knots
- C 52 A small vessel is planning a 26 Nautical mile journey between two ports running at 12 Knots and consuming 15 liter/ hour of fuel. The speed limit at the entrance of the two ports is 4 knots over a distance of 1Nm during which the vessel is assumed to consume 4L/hr at 4 knots. What is the total amount of fuel to be carried on board for the round trip adding a 20% fuel reserve to the total?
- A) 68 liters
  - B) 64 liters
  - C) 77 liters
  - D) 62 liters
- D 53 Which of the following small diesel engine pre-start check list item is incorrect?
- A) The Oil sump dip stick should show the oil level to be between the max and Min tick marks
  - B) Engine Coolant level in expansion tank to be between the Max and Min tick marks.
  - C) Raw water intake sea-cock to be turned to the full open position.
  - D) The water and fuel separator Drain plug to be switched to the "drain" position.

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- C 54 Which of the following small diesel engine post start up checklist item is incorrect?
- A) No abnormal engine sound or hull vibration to be present
  - B) Engine Raw cooling water circulation and discharge to be normal
  - C) Engine Exhaust discharge to be smokey white
  - D) No water leakage from the engine raw water cooling pump or
- C 55 Which of the following statements regarding the following devices in a small diesel engine is correct?
- A) The crank case breather valve (PCV valve) is built directly into the cylinders
  - B) The governor has a built in adjustment mechanism to let the user tweak the engine RPM
  - C) The high pressure fuel relief valve regulates fuel pressure in the rail.
  - D) The fuel priming pump sucks in air during an emergency to cutoff the supply of fuel
- B 56 Which of the following items is not a small diesel engine device?
- A) High pressure fuel injection relief valve
  - B) Engine RPM limiting governor
  - C) Crank case breather valve (PCV valve)
  - D) Over current circuit breaker
- A 57 Which statement is incorrect with respect to small diesel engines?
- A) RPM on a diesel engine is air and fuel mixture dependent.
  - B) Diesel fuel must be of low viscosity, high specific gravity and good quality.
  - C) A diesel engine can be stopped by removing the air from the combustion process.
  - D) foamy diesel entering the fuel system can cause the engine to rattle
- C 58 Which engine monitoring alarm is incorrect for this small diesel engine?
- A) Engine oil pressure too low (1)
  - B) Alternator not charging (2)
  - C) Coolant temperature is abnormally too low (3)
  - D) Insufficient raw water intake flow (4)

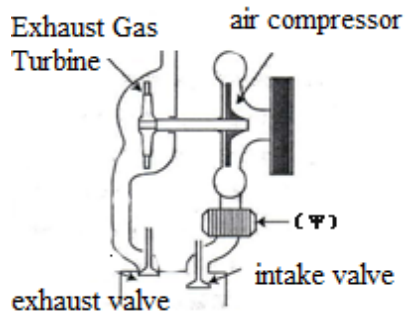


- (1) Engine Oil Pressure
- (2) Alternator Charge
- (3) Coolant Temperature
- (4) Raw water intake flow

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- D 59 Which of the following statements is correct when applying Gas law to small diesel engine turbo charger?
- A) When air Temperature rises, air density decreases
  - B) When Air temperature rises, air volume decreases
  - C) When air temperature drops, volume increases
  - D) When Air temperature drops, density increases

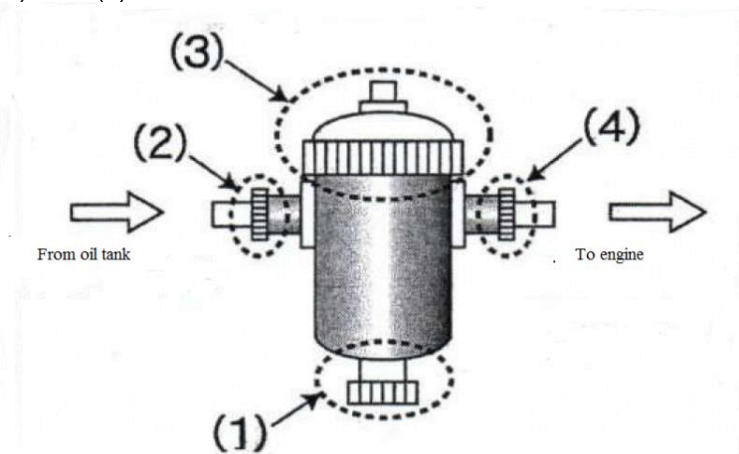


- C 60 Which cause and effect statement is incorrect with respect to V-belts installed on a small diesel engine?
- A) A V-belt that is worn out, cracked or broken can result in insufficient charging and poor cooling water circulation
  - B) A properly tensioned V-belt should not be able to deflect no more than 1.0 to 1.5 cm in most instances.
  - C) To prevent excessive wear on a V-belt; The V-belt should be removed when the boat is not in use.
  - D) A V-belt must be replaced when the belt tensioner adjustment range bottoms out.
- B 61 Which of the following procedures is a major safety hazard when performed?
- A) Ensure that there is enough engine coolant in the expansion tank and that the cap is tight and secure to prevent spillage when the engine is hot.
  - B) After stopping the engine check the coolant level in the expansion tank. If the level is too low, add coolant in the expansion tank while engine is still hot.
  - C) When inspecting the battery, it should be noted that the strong acid electrolyte should not come into contact with the skin or eyes. If it is accidentally touched, immediately rinse with plenty of water.
  - D) When carrying out on board electrical checks; It's best to turn the Main circuit breakers to the "off" position to prevent the risk of short circuits.
- D 62 Which of the following statements is inappropriate with respect to leisure boating?
- A) Small recreational boats account for the majority of the accidents that happen on water.
  - B) Lack of preparation and improper maintenance the primary cause of the majority of engine failures
  - C) Even with adequate knowledge it's impossible to repair an engine on the water without tools and spares
  - D) Pre-departure inspections are a waste of time when no engine breakdowns are expected.

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- A 63 Which of the following characteristics is applies to gasoline engines and not small diesel engines?
- A) Rugged construction provides the engine with a low noise, low vibration characteristics.
  - B) Diesel engines are more fuel efficient and fuel is cheaper.
  - C) Diesel engines have a Lower failure rate due to the use of fewer electrical components
  - D) Diesel engines have a thick, cylinder block because of the higher compression ratio used.
- D 64 Which of the following actions is unsafe when working on a broken down engine?
- A) When working on a hot engine avoid touching exhaust pipes and other hot surfaces to prevent burn injuries.
  - B) Burns can result from hot pressurized coolant spewing out of the expansion tank if opened while engine is hot.
  - C) When working on a running engine avoid loose clothing and keep safe from moving parts to avoid injuries.
  - D) To prevent burn injuries when replacing engine oil while still hot, add coolant to the expansion tank.
- C 65 Which step must be avoided when refueling?
- A) Check amount of fuel left in the tank.
  - B) Stop engine before refueling
  - C) Close the fuel tank breather valve
  - D) Check fuel quality before refueling
- D 66 Which precautions is correct when refueling a diesel powered vessel?
- A) Pumping fuel sediments in the Fuel tank
  - B) Adding clean fuel to a contaminated fuel tank
  - C) Pumping high viscosity, high density fuel into the tank.
  - D) Fuel used must be as specified by the engine manufacturer.
- A 67 which item indicated on the picture of this typical water fuel separator is the water drainage port?
- A) Item (1)
  - B) Item (2)
  - C) Item (3)
  - D) Item (4)



## 5 Turbine And Engine Knowledge

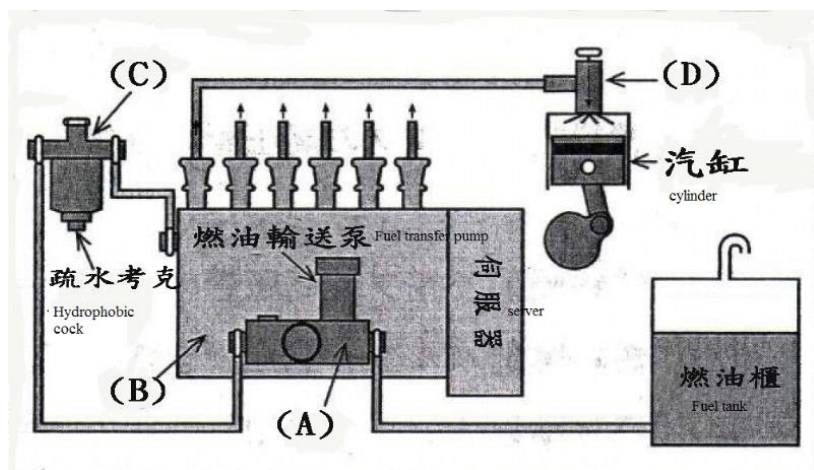
### 5 2 Operation

- C 68 Which maintenance procedure on a small diesel engine fuel system is inappropriate?  
A) A cracked fuel line sucks air into the fuel system, making replacement necessary.  
B) When a fuel filter is contaminated. The filter must be replaced  
C) After disassembly, Air must be pumped into the fuel system.  
D) A fuel-water separator fitted with a hydrophobic cork is self draining
- D 69 Which fact is incorrect with respect to engine oil?  
A) Engine oil level must be between the max and Min tick marks on the dip stick  
B) When oil mixes with water, the emulsion causes oil pressure to drop  
C) When oil mixes with fuel, the solution causes oil pressure to drop and the degraded oil turns pungent (smelly)  
D) Oil should be replaced only when the engine is completely cold
- C 70 Which function listed below is not associated with good engine oil lubrication?  
A) Oil provides a protective film over the engine parts to inhibit oxidation and corrosion.  
B) Oil reduces friction between moving parts, carries away heat and scavenges metal particles.  
C) Oil reduces electrical resistivity and increases the conductivity of electrical components.  
D) Oil seals the interface between the piston rings and cylinder walls to reduce compression losses
- B 71 What is the main reason for not checking the oil level while the engine is running?  
A) The oil gauge may interfere with the crankshaft rotation.  
B) The oil level cannot be accurately measured.  
C) Air gets sucked into the sump emulsifying the oil.  
D) The oil pressure will drop
- C 72 Which procedure is incorrect when carrying out an oil change on an engine?  
A) Warm up the engine to reduce the oil viscosity and ensure a good drainage  
B) Drain the oil sump before adding new oil to the engine  
C) Heat the oil before adding it to the engine  
D) After the oil change; run the engine, stop and check the oil level again.
- B 73 Which of the following facts about engine oil change is incorrect?  
A) Oil level to be between about the low and high mark tick on the dip stick.  
B) Oil that is degraded becomes highly viscous and must be topped up with low viscosity oil.  
C) After an oil change, the engine must ran for few minutes before the oil is checked again.  
D) The oil filter can be replaced at the same time as when the oil is changed
- B 74 Which statement is incorrect with respect to engine oil behavior is correct?  
A) Oil contaminated with fuel has a higher viscosity.  
B) Oil contaminated with metal particles glitters  
C) Oil contaminated with fuel turns cloudy white  
D) Oil contaminated with water turns pale

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- C 75 Which fact is incorrect with respect to oil mixing with diesel fuel?
- A) When engine oil mixes with fuel, Exhaust gases turn smokey
  - B) When engine oil mixes with diesel, Engine oil pressure drops
  - C) When engine oil mixes with diesel, it turns into a white emulsion
  - D) When engine oil mixes with diesel, fuel viscosity decreases
- A 76 Which method listed below is incorrect when bleeding air out of a high pressure diesel fuel injection system?
- A) Loosen the injector retaining nut and crank the engine until air is forced out.
  - B) Loose the injector retaining nut and prime the manual hand pump until air is forced out
  - C) Remove the fuel injector and inject fuel into the high pressure fuel line
  - D) Open the bleed plug on the fuel injection pump and prime the
- C 77 When air is completely purged out of a high pressure diesel fuel injection system what should be expected?
- A) No diesel fuel
  - B) Only a stream of air
  - C) Only a solid stream of diesel fuel.
  - D) A mixture of diesel fuel and bubbles
- D 78 The following figure shows a typical fuel system for a small diesel engine with each component labeled (A)through (C). Which part is correctly identified?
- A) Fuel water separator
  - B) Carburetor
  - C) High pressure pump
  - D) Fuel injectors

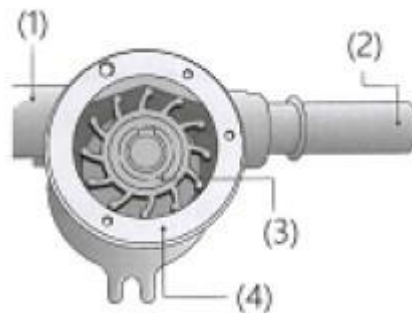


- A 79 Which diagnostic is incorrect when troubleshooting a smokey diesel engine?
- A) The fuel injection pump is broken preventing fuel delivery
  - B) Restricted fuel flow because of a dirty water fuel separator.
  - C) Sediment at the bottom of the fuel tank is mixing with the fuel
  - D) The fuel injector nozzle is clogged compromising delivery.

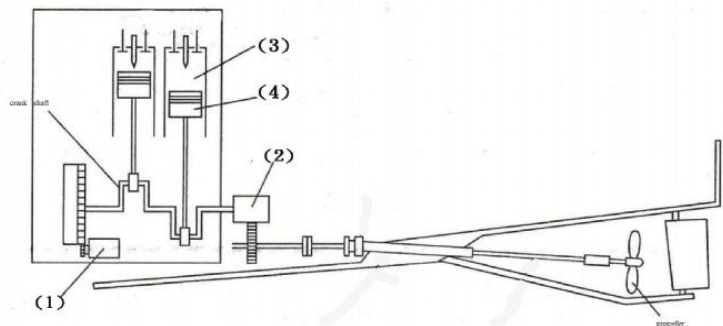
## 5 Turbine And Engine Knowledge

### 5 2 Operation

- B 80 Which cause and effect described below is incorrect when troubleshooting oil pressure problems?
- A) When Engine oil mixes with water, the oil pressure drops.
  - B) When the oil filter is dirty, the oil pressure rises
  - C) When Engine oil mixes with fuel, the oil pressure drops
  - D) When engine oil temperature is low, the oil pressure rises.
- A 81 What causes engine oil to turn milky white?
- A) Presence of water in the oil
  - B) Excess oil in the engine sump.
  - C) Metal particles infiltrating the bearings
  - D) Engine oil temperature is too high
- C 82 The picture below shows a typical boat engine water pump. What is the most frequently replaced part
- A) Item (1)
  - B) Item (2)
  - C) Item (3)
  - D) Item (4)



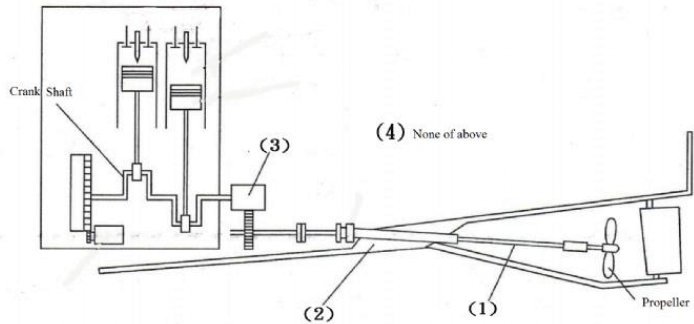
- A 83 Which item on this illustrated small boat power transmission system is the engine starter?
- A) Item (1)
  - B) Item (2)
  - C) Item (3)
  - D) Item (4)



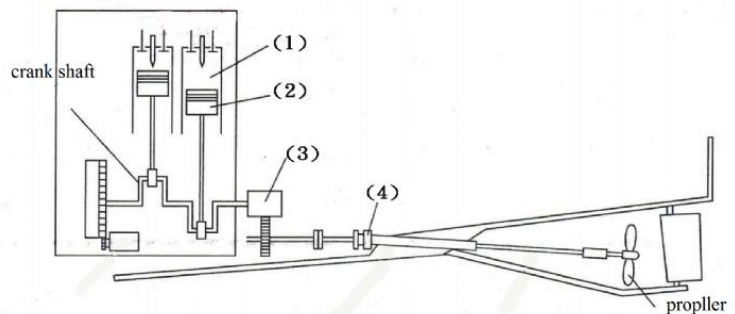
## 5 Turbine And Engine Knowledge

### 5 2 Operation

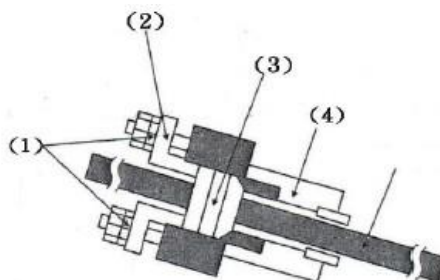
- B 84 Which item on this illustrated small boat through hull component is preventing water from flooding the engine room?
- A) Item (1) Drive shaft  
B) Item (2) Stern tube seal  
C) Item (3) Reduction gear box  
D) Item (4) None of the above



- C 85 Which item on this illustrated small boat power transmission system reduces engine RPM to improve propulsion efficiency?
- A) Item (1) Cylinders  
B) Item (2) Pistons  
C) Item (3) Reduction Gear box  
D) Item (4) Stern tube



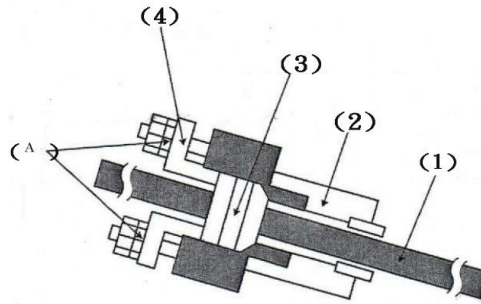
- A 86 The following picture shows a water water-lubricated stern tube and shaft. If seawater penetrates into the engine room, which part should be adjusted first?
- A) Item (1) Packing gland adjustment  
B) Item (2) Packing gland  
C) Item (3) Packing rings  
D) Item (4) Stuffing box



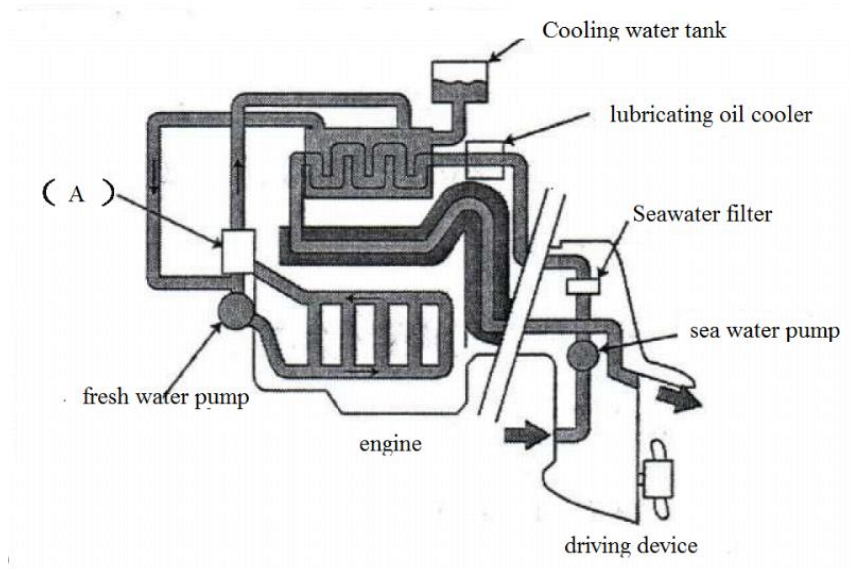
## 5 Turbine And Engine Knowledge

### 5 2 Operation

- C 87 The following picture shows a water lubricated stern tube. If the stern gland adjustment is no longer effective at stopping the ingress of water in the engine room, which part should be replaced?
- A) Item (1) Propeller shaft
  - B) Item (2) Stuffing box
  - C) Item (3) Packing rings
  - D) Item (4) packing gland



- A 88 The following picture shows a cooling water system for a stern drive installation. What is the function of part (A)?
- A) Heat exchanger / coolant thermostat
  - B) Fresh water filter
  - C) Seawater to fresh water Heat exchanger
  - D) Engine raw water pump.



- B 89 A thermostat installed on an engine with indirect cooling regulates the coolant temperature so that the engine runs optimally. If the thermostat is damaged what would the immediate consequence of that be?
- A) The coolant flow becomes restricted at the water pump
  - B) The coolant stops circulating inside the engine
  - C) The coolant temperature and raw water temperature diverge
  - D) Coolant in the expansion tank drops below the recommended levels

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- A 90 Which procedure is incorrect when replacing a damaged impeller on a raw water pump?
- A) The sea-cock / raw water intake valve must be opened to lubricate the impeller
  - B) The raw water pump impeller must be replaced periodically because of wear
  - C) A damaged impeller should be replaced with a new one even if it is still working
  - D) A damaged impeller cannot circulate sufficient cooling water and should be replaced immediately
- D 91 Which step is incorrect when checking the cooling water system on a small diesel engine with indirect cooling?
- A) Check the raw water strainer for detritus before starting the engine
  - B) The fresh water level to be between the lower and upper tick mark on the expansion tank
  - C) After starting the engine visually check that the exhaust water discharge is normal.
  - D) After the engine start open and check the fresh water level in the expansion tank
- D 92 Which statement is incorrect with respect to the proper functioning of cooling water system?
- A) A seawater pump is driven by the engine through a V-belt.
  - B) When the engine high Temperature warning light is on, The first consideration should be the raw water pump
  - C) To protect against corrosion Zinc anodes should be used on both direct and indirect engine cooling systems.
  - D) The thermostat is always on the raw water side whether the engine has direct indirect cooling or not
- D 93 Which fact is incorrect with respect to coolant additives (antifreeze) when used on an engine with indirect cooling?
- A) The coolant must be replaced when the engine has been iddled for a long period of time
  - B) The additive must be mixed with water at the correct ration for it to be effective against freezing
  - C) The additive must be mixed with water at the correct ratio to be effective against corrosion
  - D) When the climate is cold less additive is needed compared to when the weather is warm
- C 94 Which statement below describes the correct function of a thermostat in an engine with an indirect cooling system?
- A) Sea water is used to lower the temperature of the coolant circulating inside the engine.
  - B) The thermostat senses the temperature of the engine and controls the flow of coolant to the engine.
  - C) The thermostat regulates the flow of coolant based on the coolant temperature
  - D) The thermostat forces both the fresh water and raw water to circulate inside the engine.

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- C 95 what is the immediate effect of a broken thermostat on an indirect-cooled diesel engine?
- A) Insufficient coolant delivery
  - B) The coolant temperature sensor is damaged
  - C) The coolant flow stops re-circulating
  - D) Low coolant level in the expansion tank
- D 96 Which step on this check list is incorrect with respect to indirect cooling on a small diesel engine?
- A) Check the raw water strainer for detritus before starting the engine
  - B) Check the fresh water level to be between the lower and upper tick mark on the expansion tank
  - C) After starting the engine visually check That the exhaust water discharge is normal
  - D) After the engine start open and check the fresh water level in the expansion tank
- C 97 Which statement describes the change in specific gravity of a battery electrolyte correctly?
- A) The lower the electrolyte temperature, the lower the specific gravity
  - B) The lower the electrolyte level, the lower the specific gravity
  - C) The more the state of discharge, the lower the specific gravity.
  - D) The more the state of charge, the lower the specific gravity
- B 98 Consider statements (1) through (4) and the matching answer to each statement and determine which one is incorrect with respect to charging a lead acid battery. (1) When charging a battery, the temperature must not rise too quickly as this may damage the battery's internal components.(2) Should the temperature rise too quickly, action must be taken quickly to keep the temperature down. (3) When charging, the battery will gas off and thus adequate ventilation must be provided. Sources of heat and open flames should be avoided. (4)To determine the state of full charge, the electrolyte density must be within the standard value.
- A) Referring to statement 1;The internal components means the battery plates and separation membranes
  - B) Referring to statement 2; The best course of action is to pour cold water on the terminals
  - C) Referring to statement 3; Gazing off involves the release of Hydrogen and oxygen
  - D) Referring to statement 4; The battery is fully charged when the electrolyte density is at the normalized value
- B 99 Which fact is incorrect with respect to battery charging?
- A) A battery with a capacity of 70 amps needs a 7 Amp current for slow charge
  - B) The charger leads must be connected negative to battery positive and charger positive to battery negative.
  - C) When charging a lead acid battery release and explosive mixture of Oxygen and hydrogen
  - D) When fully charged a lead acid battery has an electrolyte with a specific gravity of 1.28.

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- D 100 Which battery charging fact is correct?
- A) Fast charging is slower than the constant current charge method and improves battery life
  - B) When fully charged, the specific gravity of the electrolyte drops
  - C) When the electrolyte level is too low, it's replenished with dilute sulfuric acid solution
  - D) When charging the electrolyte temperature must not get too hot
- C 101 Which sequence is correct when describing the interaction of an inboard propulsion system for a small boat?
- A) Propeller shaft → Crankshaft → Reduction gearbox → Propeller
  - B) Propeller shaft → Reduction gearbox → Crankshaft → Propeller
  - C) Crankshaft → Reduction gear box → Propeller shaft → Propeller
  - D) Crankshaft → Propeller shaft → reduction gearbox → Propeller
- C 102 Which fact is incorrect with respect to the workings of a small vessel inboard drive line?
- A) The oil in the reduction gear box must be replaced periodically
  - B) The Stern Tube is made watertight using the gland Packing method
  - C) The sacrificial propeller zinc anode need not be replaced when fully depleted
  - D) The engine won't start if the shift control lever is not in the neutral position.
- B 103 Which statement is correct with respect to a stern gear installation?
- A) The stern tube is bolted to the hull
  - B) A zinc anode must be installed between the shaft and propeller
  - C) The whole stern gear assembly is produced using FRP ( Fibre reinforced plastic)
  - D) The propeller drive shaft must be machined with a right hand thread for right handed propellers
- C 104 Which procedure is incorrect when replacing a propeller on an inboard powered vessel?
- A) The Propeller hub and shaft should be well lubricated to prevent binding
  - B) The clutch may slip if the cotter pin is removed when taking down the propeller.
  - C) When removing the propeller do not loosen the nut
  - D) When removing the propeller a wooden block must be used to prevent
- C 105 Which statement poorly describes the function of a marine transmission and reduction gear box?
- A) The reduction gearbox direction of rotation is opposite to that of the engine's standard rotation.
  - B) The engine torque is transmitted to the propeller via the reduction gear box and drive shaft
  - C) The reduction gear box reduces the speed of the drive shaft by suppressing engine power
  - D) The clutch is a device that transmits the torque of the engine to the propeller

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- C 106 Which fact is incorrect with respect to a small boat inboard drive system?
- A) To prevent galvanic corrosion it is important to install sacrificial zinc anodes at the propeller.
  - B) To prevent water ingress into the engine room the gland packing must be tightened
  - C) The propeller shaft is secured to the boat by bolts.
  - D) The propeller shaft is supported at the propeller end by a strut fitted
- C 107 How tight should gland packing be on a water lubricated stern tube when the boat is docked?
- A) The gland packing shouldn't let any water in
  - B) The gland packing should let water drip quickly
  - C) The gland packing should let water drip slowly
  - D) The gland packing should let water stream
- B 108 Which statement is incorrect in relation to the work done by a marine reduction gearbox?
- A) The reduction gearbox increases propulsion efficient
  - B) The reduction gearbox reduces engine exhaust temperature
  - C) The gearbox reduction ratio controls the propeller pitch selection
  - D) The gearbox reduction ratio controls Propeller blade cavitation
- D 109 Which fact is incorrect with respect to propellers?
- A) A damaged propeller must be repaired or replaced as quickly as possible
  - B) A replacement propeller should have the same diameter, pitch and rack as the original it replaces.
  - C) A wooden block should be used to lock the propeller rotation to facilitate removal.
  - D) The propeller blades must be bonded at the root with a very strong
- D 110 Which fact is incorrect with respect to propeller maintenance?
- A) A wooden block is used to lock the propeller rotation before removal
  - B) Fishing lines and nest wrapped around the propeller must be removed
  - C) When mounting the propeller, the shaft, key and keyway must be Greased
  - D) The propeller blades must be bonded at the root with a very strong adhesive.
- D 111 Which fact is correct with respect to drive shaft maintenance on a small power driven vessel?
- A) The zinc anodes mounted on the propeller shaft must be painted to prevent corrosion
  - B) Before sailing, the stern tube packing gland must be very tight to prevent water ingress
  - C) The propeller lock nut thread rotation must follow the same rotation as the propeller shaft
  - D) Lock nuts must be used to prevent the packing gland nuts loosening under the effect of vibration

## 5 Turbine And Engine Knowledge

### 5 2 Operation

- D 112 Which facts cannot be determined with certainty with respect to propellers?
- A) The engine over revs When the propeller comes loose
  - B) The Propeller diameter, pitch, blade rack and shape affect engine load
  - C) Pitch is the theoretical distance a propeller moves through the water
  - D) Damaged propeller blades can cause hull vibrations.
- D 113 Which statement is correct with respect to propellers?
- A) Propeller rotation is determined looking at propeller as seen from the bow
  - B) A damaged propeller spins in reverse.
  - C) A damaged propeller can be replaced when the engine is still running.
  - D) Pitch is the theoretical distance a propeller travels through a solid in one rotation
- B 114 Which statement is incorrect when considering the water tightness of vessel's stern tube
- A) To prevent water from entering the vessel the stern tube must be fitted with shaft seals
  - B) To prevent the propeller from overheating, the gland packing must be loosened when underway.
  - C) When the vessel is idle the gland packing should only allow water to drip in slowly
  - D) To keep the stern tube watertight, mechanical shaft seals are used along with packing rings.
- D 115 Which diagnostic is correct with regards to a diesel engine spewing white exhaust smoke?
- A) High engine load under acceleration
  - B) Insufficient air supply due to a dirty air filter
  - C) Clogged fuel injection valve
  - D) Too much oil entering the combustion chamber
- A 116 Which statement is incorrect with respect to a diesel engine spewing black exhaust smoke?
- A) Black smoke: Too much lubricating oil is entering the combustion chamber
  - B) Black smoke: Engine load is too high
  - C) White smoke: Engine is burning the wrong type of fuel
  - D) White smoke: Cold engine due to low outside temperature
- A 117 Which diagnostic is correct for a diesel engine emitting black exhaust smoke?
- A) Too much lubricating oil is entering the combustion chamber
  - B) Engine load is too high
  - C) Insufficient air due to a dirty air filter
  - D) Insufficient fuel injector pressure

## **5 Turbine And Engine Knowledge**

### **5 2 Operation**

- B 118 Which fact relating to diesel engine fault alarm is incorrect?
- A) Alternator charging light fails to turn on when the alternator is not charging
  - B) The alarm automatically stops when the engine reaches its normal operating temperature
  - C) Engine alarms monitor key engine parameters to prevent major failures.
  - D) The Engine alarm is activated when the engine mounted sensors detect anomalies during operation

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- A 1 How can mechanical failures on a vessel be reduced?
- A) Timely routine inspections
  - B) Repair or replace after suffering breakdowns
  - C) Spot checks after suffering breakdowns
  - D) Careful operation
- A 2 Which safety precaution must be considered first when working on electrical installations?
- A) Turning off the power supply and complying with safety regulations
  - B) Leaving the main power supply On when working on voltage circuits
  - C) Working with wet and sweaty hands on electrical equipment is safe
  - D) Safety is not compromised when Working with wet hands on low voltage circuits.
- B 3 Which practice is unsafe when working on electrical installations?
- A) Turning off the power supply at the main electrical panel.
  - B) Working with wet and sweaty hands
  - C) Using an insulation mat to stand on
  - D) Using insulated tools
- C 4 Which practice is deemed dangerous when working on live electrical equipment?
- A) Wearing rubber gloves
  - B) Using insulated tools
  - C) Wearing leather shoes
  - D) Using ground insulation
- A 5 What should you do first when electrical equipment starts to smoke?
- A) Cut off the power supply
  - B) Find a fire extinguisher
  - C) Request for help
  - D) Order a smoke evacuation

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- A 6 What is the appropriate course of action when someone is electrocuted?
- A) Locate and turn off the electrical power supply
  - B) Isolate the person from the source of the electric shock
  - C) Call first aid responders to deal with the emergency
  - D) Remove the source of the electrical shock immediately.
- D 7 What is the most probable cause of engine oil turning milky white?
- A) Severe engine wear
  - B) Combustion gases blowback
  - C) Excess fuel blowback
  - D) Coolant leakage
- B 8 Which step is correct when performing an engine oil change?
- A) The oil level in the sump must be checked while the engine is running
  - B) Oil level is checked with a dipstick. If milky white the oil has deteriorated
  - C) The oil level must be above the dipstick full level mark
  - D) Replacement oil filters must be tightened effectively with a wrench.
- D 9 Compared to a car engine, a boat engine must be inspected and maintained more frequently. Which fact is the most unlikely reason for the added maintenance?
- A) Mechanical and electrical components tend to breakdown more often because of the humid, high salinity environment.
  - B) Marine engines are mostly seawater cooled. This leads to internal corrosion and engine damage.
  - C) Engine components are subjected to heavy transient loads leading to premature failure.
  - D) Modern engine lubricants cannot perform reliably and efficiently when subjected to a harsh marine environment
- A 10 Which factor is not the main driver of the periodic inspection of a marine engine?
- A) If freshwater is used for cooling, the inspection interval is shorter than that using sea water
  - B) If the engine is used at a heavy load for long periods, the inspection interval is shortened
  - C) If the engine is running in heavy weather for long periods, the inspection interval is shortened
  - D) If the engine is used when the hull bottom is heavily fouled, the inspection interval is shortened

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- C 11 Which item on this list is not part of a casual engine inspection?
- A) Engine oil level
  - B) Fuel filter
  - C) Raw water pump impeller
  - D) V-belts
- C 12 Which statement is incorrect with respect to changing oil on a four stroke outboard engine?
- A) Severe burns can result when performing an oil change on a hot engine that's just been stopped.
  - B) Some outboard engines must be tilted at an angle for the oil to drain properly.
  - C) The drain plug must be removed for the oil to drain while replenish with new oil
  - D) The oil must settle before it is checked again
- D 13 Consider the following two statements with respect to zinc anodes used to protect a vessel from galvanic corrosion Statement and decide whether the statements are correct? (a) A worn out zinc anode need not be replaced Statement (b) When a zinc anode reaches it halfway life, a coat of anti rust paint is sufficient to extend its usage.
- A) Statement (a) is correct
  - B) Statement (b) is correct
  - C) Both statements are correct
  - D) Both statements are incorrect
- C 14 Which statement is incorrect with respect to batteries?
- A) The battery must be fully charged when stored for extended periods
  - B) Battery Electrolyte level must e maintained when stored for extended periods
  - C) A battery should be fully discharged when stored for extended periods
  - D) The battery terminals should be disconnected when stored for
- C 15 Which engine winterizing step is incorrect?
- A) Flush Engine cooling circuit with fresh water and drain thoroughly
  - B) Replace engine oil and oil filter
  - C) Empty fuel tank and fill with fresh water to inhibit corrosion
  - D) Disconnect the battery terminals and recharge before storage.

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- D 16 Which of the following probable causes and solutions is most unlikely with respect to engine troubles?
- A) The solution to an overheated engine is insufficient oil. Top up to the correct level
  - B) The solution to an overheated engine is insufficient coolant. Top up and proceed at reduced speed
  - C) The solution to a fouled propeller stalling the engine is to remove the obstruction
  - D) The solution to a clogged air filter on a turbo charged engine is to remove the turbo vane
- D 17 Which is the most unlikely diagnostic for a loss of power on a small diesel engine?
- A) Clogged oil filter
  - B) Clogged Turbo-charger air filter
  - C) Soot accumulation in the exhaust gas manifold
  - D) Battery state of charge is too low
- C 18 A diesel engine can be started but stops immediately afterwards. What is the most improbable cause for the condition?
- A) Fuel filter is clogged
  - B) Injector nozzle is clogged
  - C) Excessive carbon deposits in the exhaust pipe
  - D) Air or water present in the fuel system
- C 19 Which is the most unlikely diagnostic for a loss of power on a small diesel engine?
- A) Clogged oil filter
  - B) Clogged Turbo-charger air filter
  - C) Shift cable is too loose
  - D) Hot or insufficient engine room ventilation
- A 20 What is the most unlikely diagnostic for a vessel that fails to pick up speed as engine RPM is increased?
- A) Clogged fuel filter
  - B) Fouled bottom due to heavy marine growths
  - C) Propeller pitch is too small
  - D) Heavily corroded propeller
- C 21 What is the most unlikely diagnostic for A vessel that fails to pick up speed?
- A) Overloaded or overheated engine
  - B) Poor propeller specifications
  - C) Shift cable too loose
  - D) Heavily Fouled underwater hull and running gear.
- B 22 Which procedure is incorrect when dealing with an overheated engine?
- A) Shift the engine into neutral and reduce RPM
  - B) Hose down the engine to cool it down
  - C) Check the raw water intake for obstructions
  - D) Check the pulley and the V-belt tension on the raw water pump
- D 23 Which statement is incorrect with respect to white exhaust smoke emissions from a diesel engine?
- A) Crankcase oil blow by
  - B) Worn Out piston rings
  - C) Coolant infiltration in a cracked cylinder
  - D) Irregular cylinder compression or engine overload.

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- A 24 What is the most unlikely reason for a diesel engine lack of power?
- A) The fuel Cock is not open
  - B) Loose throttle control cable
  - C) The air intake filter is too dirty
  - D) Hot or insufficient engine room ventilation
- A 25 Which diagnostic is most unlikely to be the reason for a diesel engine's lack of power?
- A) Clutch slippage
  - B) Clogged fuel filter
  - C) Clogged turbo air intake filter
  - D) Heavy Soot deposits or exhaust back pressure build up
- B 26 A gasoline powered vessel experiences a rough surge, vibration and a drop in speed while underway. What is the most unlikely cause for this problem?
- A) Water in the fuel line
  - B) Faulty engine starter
  - C) Loose battery connector
  - D) Damaged propeller
- D 27 The stern shaft on a small boat has developed excessive vibration. What is the most unlikely cause?
- A) The propeller shaft is out of alignment
  - B) Cutlass bearing is worn out
  - C) Damaged propeller blades
  - D) Excessive shaft wear at the packing gland
- D 28 What is the most unlikely diagnostic for power driven vessel that fails to pick up speed?
- A) The propeller is fouled by plastic detritus
  - B) The drive unit is raised too high
  - C) The propeller blades are damaged
  - D) The propeller nut is locked tight
- A 29 What is the most appropriate course of action when a small diesel engine overheats?
- A) Lower the engine (rpm)
  - B) Clean the oil filter
  - C) Stop the engine immediately
  - D) Replenish the oil
- C 30 A small boat engine is making abnormal sounds and spewing smoke. What is the most unlikely reason for this?
- A) Insufficient engine oil caused the engine to seize.
  - B) Broken V-belt made the cooling water circulation pump inoperable
  - C) A faulty alternator failing to charge the battery
  - D) Plastic detritus clogging the raw water intake.
- A 31 Which is not the primary reason for a diesel engine to spew thick Black smoke under heavy acceleration?
- A) Excessive piston wear allowing oil into the combustion chamber.
  - B) High engine load combined with poor combustion efficiency
  - C) Turbo charger not spooling fast enough restricting air flow.
  - D) Clogged fuel injection nozzle and poor fuel atomization

## 5 Turbine And Engine Knowledge

### 5 3 Maintenance And Troubleshooting

- B 32 Which engine trouble shooting tip is incorrect?
- A) When the engine is running rough check for water in the fuel
  - B) Black exhaust smoke check engine oil level when engine is at full throttle
  - C) In the presence of foul smell check engine temperature and electrical Wiring
  - D) When engine alarm is on shift engine to neutral and trace the system fault
- C 33 Which fact about air intake filters on turbo charged engines is correct?
- A) To reduce air resistance in the air intake the air filter with the largest mesh must be selected.
  - B) To avoid the degradation of an air intake filter, rust inhibitor must be sprayed on regularly
  - C) A clogged air filter restricts air into the cylinder resulting in a partial combustion and black smoke
  - D) A clogged air filter alters fuel density in the cylinders, resulting in higher engine output.
- D 34 Which is the most unlikely reason for a diesel engine sudden stop?
- A) Pistons or crankshaft burnout
  - B) Engine control unit (ECU) malfunction
  - C) Air in the fuel system or Broken high pressure fuel pipe
  - D) The turbo charger air intake filter is clogged.
- D 35 Which fact is incorrect with respect to sea motion and its effect on small power driven vessel?
- A) Sea motion may stir sediments in the fuel tank, causing the fuel line to clog.
  - B) Air may get sucked into the fuel system when the tank is near empty
  - C) Sea motion may lift the stern of the vessel causing the propeller to cavitate and the engine to over rev.
  - D) sea motion may cause a pressure drop across the raw water intake causing the cooling pump to work in reverse.
- D 36 Which trouble shooting step is incorrect when dealing with an overheated engine?
- A) Check the presence or absence of blockage of the seawater inlet or seawater filter
  - B) Check the V-belts on the seawater pump and the cooling water circulation pump
  - C) Check the water level in the cooling water circuit expansion tank
  - D) Open the cap on the cooling water expansion tank and check the water level

## 6 Boat Navigation

### 6 1 Navigation Planning and Technology

- B 1 What is the correct latitude and longitude for "Shan Shui" fishing port (山水漁港) on Penghu island? Use the practice chart provided
- A) 119. 38.2, E 23. 31.5, N
  - B) 119. 35.9, E 23. 30.8, N
  - C) 119. 40.0, E 23. 30.8, N
  - D) 119. 41.2, E 23. 30.0, N
- B 2 On the South East side of Penghu Island, 119. 38.2, E, 23. 30.8, there is a fish farm. According to the chart provided, What is the approximate area of the farm?
- A) 65 km<sup>2</sup>
  - B) 75 Km<sup>2</sup>
  - C) 85 km<sup>2</sup>
  - D) 95 km<sup>2</sup>
- C 3 In the southern part of "Hu-Jing Yu" island (虎井嶼) (119. 31.5, E 23. 28.5, N) there is a circular fishery. Using the practice chart provided determine the diameter of the fishery.
- A) 1.45 km
  - B) 1.65 km
  - C) 1.85 km
  - D) 2.15 km
- B 4 Identify the sea bottom on the Northern shore of "Jee lung Yu" (雞籠嶼) (119.31.95, E 23. 32.5, N)? Use the practice test chart
- A) Gravel
  - B) Shoal
  - C) Mud
  - D) Coral
- C 5 What is the water depth 0.35Nm from "Stong Kuang Yu Khang" fishing port (重光漁港) (119.33.3, E 23.35.2, N)? Using the practice chart provided.
- A) 3.6 m
  - B) 5.5 m
  - C) 2.7 m
  - D) 7.0 m
- C 6 What is the sea bed like In the southern part of Penghu Island 119.35.4 E, 23. 28.9 N? Use the practice chart provided.
- A) Sand
  - B) Mud
  - C) Shell and sand
  - D) shell
- D 7 What is the depth of the "Dong-Zhong" Reef (東中礁) near the center of "Magong" (馬公) Inner Harbor on Penghu? Use the practice chart.
- A) 3.7 m
  - B) 7.3 m
  - C) 4.5 m
  - D) 5.2 m
- A 8 What is the straight line distance between "Er Do Be" (鵝豆鼻) (119.32.7, E 23.29.7, N) to the "Shan Shuey" fishing port (山水漁港) (119.35.9, E 23.30.8, N)? Use the practice test chart
- A) 3 Nm
  - B) 4 Nm
  - C) 5 Nm
  - D) 6 Nm

## 6 Boat Navigation

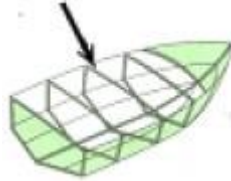
### 6 1 Navigation Planning and Technology

- A 9 A small boat sets sail from "Er To Be" (鵝豆鼻) heading east to (119 ° 34.8 , E, 23 ° 29.65 , N). Pointing a magnetic compass at the "Shan Shui" Fishing harbor lighthouse (山水漁港), the compass reads 45.8 degrees. What is the compass deviation? (Please use the practice chart)
- A) 1.2. E  
B) 1.2. W  
C) 1.6. E  
D) 1.6. W
- A 10 What is the water depth between "Feng Gui Xi" fishing harbor (風櫃西漁港) and "Ji Long" Island (雞籠嶼) (119.32.15, E 23.32.3, N)? Use the practice test chart.
- A) 2.5 ~ 2.7 m  
B) 1.5 ~ 2.3 m  
C) 3.4 ~ 3.9 m  
D) 4.1 ~ 4.6 m
- C 11 Use the enclosed chart to calculate the magnetic difference for year 2018.
- A) 3.40, W  
B) 3.45, W  
C) 3.55, W  
D) 3.60, W
- D 12 What is the tidal flow speed between "Hu jing" island (虎井嶼) and "Jing-An" Mountain (井仔垵山)? Use the test chart.
- A) 3.0 Knots  
B) 3.5 Knots  
C) 4.0 Knots  
D) 4.75 Knots
- B 13 Departing from "Feng Gui Xi" fishing harbor (風櫃西漁港, 119 ° 32.45 , E , 23 ° 32.6 , N), you head south until you reach (119 ° 32.25 , E 23 ° 31.25 , N—轉向點1), then head South-East to (119 ° 34.8 , E 23 ° 29.65 , N), then head North-East until you reach "Shan-Shui" Fishing Harbor (山水漁港, 119 ° 35.9 , E 23 ° 30.8 , N). What is the total sailing distance measured in a straight line? (Please use the practice map)
- A) 4.28 Nm  
B) 5.73 Nm  
C) 6.58 Nm  
D) 7.45 Nm

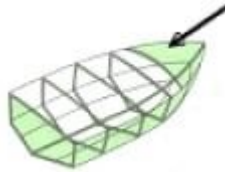
## 6 Boat Navigation

### 6 2 Boat Knowledge

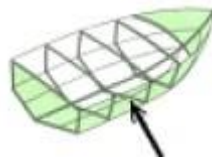
- C 1 What is the name given to the structure indicated by the arrow?
- A) Deck
  - B) Frames
  - C) Beams
  - D) Shell



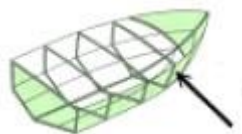
- A 2 What is the name of the structure indicated by the arrow?
- A) Deck
  - B) Frame
  - C) Beam
  - D) Shell



- B 3 What is the name given to the structure indicated by the arrow?
- A) Deck
  - B) Frame
  - C) Beam
  - D) Bottom



- D 4 What is the name given to the structure indicated by the arrow?
- A) Deck
  - B) Bottom
  - C) Beam
  - D) Shell



## 6 Boat Navigation

### 6 2 Boat Knowledge

- C 5 What is the source of a continuous water discharge from the sides of the engine room of a power driven vessel?  
A) Toilet drainage  
B) Deck drainage  
C) Engine or Generator cooling water discharge.  
D) Bilge water discharge
- A 6 What is the proper English word used to indicate the left side of a vessel when facing forward?  
A) Port side  
B) Starboard side  
C) Left side  
D) Right side
- B 7 What is the proper English word used to designate the right side of a vessel when looking forward?  
A) Port side  
B) Starboard side  
C) Left side  
D) Right side
- B 8 Which of the following statements is correct? (a) Gross tonnage refers to the size of all enclosed space on the ship and the unit is metric Ton (b) Dead weight refers to the weight of people, cargo and oil on board the vessel and the unit used is the metric ton.  
A) Only (a) is correct  
B) Only (b) is correct  
C) (a) and (b) are correct  
D) (a) and (b) are wrong
- D 9 Which of the following materials must be equipped with a lightning rod along with its water grounding wire and conductive plate?  
A) Steel  
B) Aluminum alloy  
C) Stainless steel  
D) Fiberglass (FRP)
- B 10 Which type of engine installation requires a rudder to be fitted to the vessel in order to change course?  
A) Outboard engine installation  
B) In-board engine installation  
C) Stern drive installation  
D) Water jet installation
- C 11 What is the maximum rudder angle allowed for a vessel with an inboard engine installation?  
A) 25 degrees  
B) 30 degrees  
C) 35 degrees  
D) 40 degrees
- C 12 What is the vertical distance from the ship's waterline to the main deck called?  
A) Empty height  
B) Side height  
C) Freeboard  
D) Empty height

## 6 Boat Navigation

### 6 2 Boat Knowledge

- B 13 What is the name given to the distance taken from the vessel's waterline to the lowest point in the hull?
- A) Vessel depth
  - B) Draft
  - C) Wet depth
  - D) Wet side
- C 14 A vessel carries through the water after stopping its engine(s) for some distance because of some physical forces related to what?
- A) Buoyancy
  - B) Gravity
  - C) Inertia
  - D) Centrifugal forces
- B 15 For the purpose of keeping good stability of a craft, which of the following statements is correct ?
- A) The center of gravity must be higher than the center of buoyancy
  - B) The center of gravity must be lower than the center of buoyancy
  - C) The center of gravity must be the same as the center of buoyancy
  - D) All the conditions mentioned above are needed for vessel stability
- A 16 How should a vessel be trimmed fore and aft in order to preserve stability and good handling characteristics?
- A) Stern trim bias
  - B) Bow trim bias
  - C) Level trim
  - D) All of the above
- C 17 Inertia forces are principally responsible for a ships momentum through the water when the engine(s) are stopped. Which factor may contributes to a longer stopping distance due to increased inertial forces?
- A) Fouled hull bottom
  - B) Steaming into a head sea
  - C) Carrying heavy cargo
  - D) Steaming upwind
- D 18 Which of the following parameters does not affect the stability of a vessel?
- A) Center of gravity
  - B) Metacentric height
  - C) Righting moment
  - D) Hull material

## 6 Boat Navigation

### 6 2 Boat Knowledge

- B 19 The following is a ship's rolling period table (Boat roll) that predicts a vessel's stability and resistance to over turning (GM value). Use the table below to determine the rolling period for a vessel that has a beam of 3.2m and a draft of 1.0m.
- A) 3.8 seconds  
 B) 4.0 seconds  
 C) 4.1 seconds  
 D) 4.5 seconds

		rolling period (second)														
breadth (m)	depth (m)	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
0.6		3.2	3.2	3.4												
0.7		3.8	3.5	3.3	3.5											
0.8		4.3	4.0	3.7	3.6	3.6	3.7									
0.9		4.3	4.6	4.3	3.9	3.7	3.7	3.8								
1.0			4.6	4.9	4.5	4.2	4.0	3.8	3.9	4.0						
1.1				4.8	5.1	4.6	4.4	4.2	4.0	4.0	4.1	4.3				
1.2					5.0	5.2	4.8	4.5	4.3	4.2	4.1	4.2	4.3			
1.3						5.1	5.3	5.0	4.7	4.5	4.4	4.2	4.3	4.4		
1.4							5.3	5.5	5.1	4.9	4.7	4.5	4.4	4.4	4.5	4.5
1.5								5.4	5.6	5.3	5.1	4.9	4.7	4.6	4.5	4.6
1.6									5.5	5.7	5.4	5.2	4.9	4.9	4.8	4.7
1.7										5.7	5.9	5.6	5.4	5.2	5.1	5.0
1.8											5.8	6.0	5.8	5.5	5.4	5.2

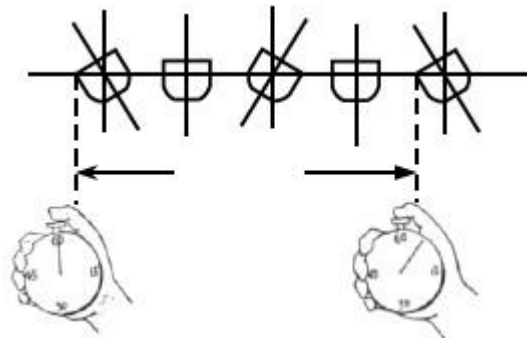
- A 20 The following is a ship's rolling period table (Boat roll) that predicts a vessel's stability and resistance to over turning (GM value). Use the table below to determine the rolling period for a vessel that has a beam of 3.4m and a draft of 1.5m.
- A) 5.1 seconds  
 B) 5.3 seconds  
 C) 5.5 seconds  
 D) 5.7 seconds

		Rolling Period (second)														
breadth (m)	depth (m)	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
0.6		3.2	3.2	3.4												
0.7		3.8	3.5	3.3	3.5											
0.8		4.3	4.0	3.7	3.6	3.6	3.7									
0.9		4.3	4.6	4.3	3.9	3.7	3.7	3.8								
1.0			4.6	4.9	4.5	4.2	4.0	3.8	3.9	4.0						
1.1				4.8	5.1	4.6	4.4	4.2	4.0	4.0	4.1	4.3				
1.2					5.0	5.2	4.8	4.5	4.3	4.2	4.1	4.2	4.3			
1.3						5.1	5.3	5.0	4.7	4.5	4.4	4.2	4.3	4.4		
1.4							5.3	5.5	5.1	4.9	4.7	4.5	4.4	4.4	4.5	4.5
1.5								5.4	5.6	5.3	5.1	4.9	4.7	4.6	4.5	4.6
1.6									5.5	5.7	5.4	5.2	4.9	4.9	4.8	4.7
1.7										5.7	5.9	5.6	5.4	5.2	5.1	5.0
1.8											5.8	6.0	5.8	5.5	5.4	5.2

## 6 Boat Navigation

### 6 2 Boat Knowledge

- D 21 The characteristics of a bottom heavy / top heavy vessel and corresponding relationships are described in the four statements below. Which statement is incorrect with respect to the followings?
- A) Center of gravity (CG): High (CG) is top heavy; Low(CG) is bottom heavy
  - B) Rolling period: Long period is top heavy; Short period is bottom heavy
  - C) Righting moment: Small moment is top heavy; Small moment is bottom heavy
  - D) Heel angle: Small heel angle is top heavy; Large heel angle is bottom heavy
- B 22 What is a good indicator that an anchor is not properly set on the seabed?
- A) The anchor rode is sagging gently
  - B) The vessel is dragging down wind
  - C) The vessel is swinging gently
  - D) The anchor rode feels vibration less.
- B 23 What is being measured on the illustration shown below?
- A) Ship speed
  - B) Roll period of a vessel
  - C) Heading
  - D) Sailing distance

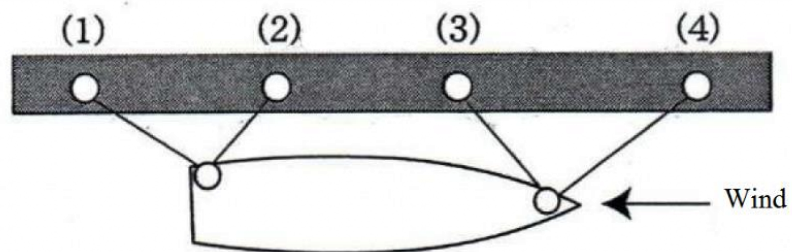


- B 24 When shifting weight towards the stern of a vessel, the longitudinal trim of the vessel is altered. What is the term generally used to describe this adjustment?
- A) Bow trim
  - B) Stern trim
  - C) Level trim (Even Keel)
  - D) Top Heavy trim
- B 25 How best to describe the distance a vessel covers through the water until a complete stop from the moment the engine(s) are stopped?
- A) Starting inertia force
  - B) Shortest stopping distance
  - C) Stopping inertial force
  - D) New heading distance
- C 26 What is the appropriate length of rode (rope / chain length) to use when anchoring?
- A) About 1 times the water depth
  - B) About 1.5 times the water depth
  - C) About 3 times the water depth
  - D) About 6 times the water depth

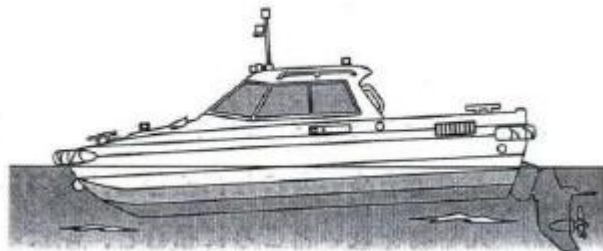
## 6 Boat Navigation

### 6 2 Boat Knowledge

- B 27 When a power driven vessel cannot stay on course when the full rudder is applied, the loss of control is referred to as what?
- A) Rolling
  - B) Broaching
  - C) Heeling
  - D) Pitching
- D 28 Based on the picture below; which mooring line must be secured first when docking with the bow upwind?
- A) Mooring line (1)
  - B) Mooring line (2)
  - C) Mooring line (3)
  - D) Mooring line (4)



- A 29 Which expression best describes the trim (balance) of this small powerboat?
- A) Bow trim
  - B) Stern trim
  - C) Level trim
  - D) Top heavy trim

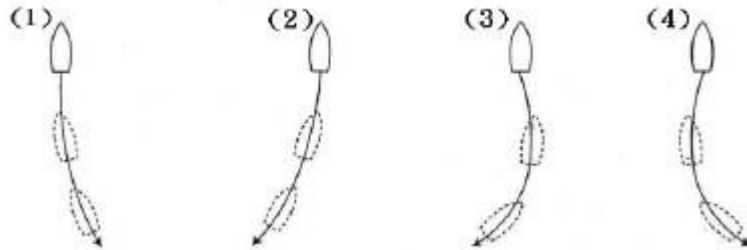


- C 30 What is the purpose of making few locking turns around a bollard or pile when securing a mooring line?
- A) Dampen the effect of the tidal range
  - B) Protect the bollard or pile from excessive wear
  - C) Prevent the mooring line from slipping
  - D) Prevent the mooring line from coming loose
- B 31 When docking or undocking with the wind parallel to a pontoon or jetty; In what order should your two primary mooring lines (1) and (2) be cast to prevent your vessel from being blown away?
- A) Line (1) upwind first, second line (2) upwind
  - B) Line (1) upwind first, second line (2) downwind
  - C) Line (1) downwind first, second line (2) upwind
  - D) Line (1) downwind first, second line (2) upwind

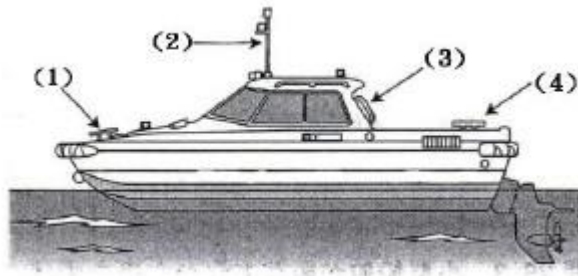
## 6 Boat Navigation

### 6 2 Boat Knowledge

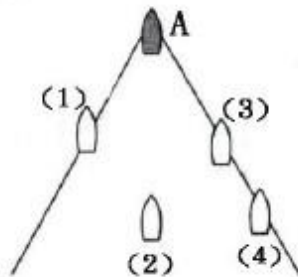
- B 32 What is the tracking tendency of a displacement type vessel driven by a single right handed propeller when operated in reverse ? Assume the rudder is dead center and discard the effect of wind and current. Use track (1)~(4) for your answer.
- A) Track (1)  
B) Track (2)  
C) Track (3)  
D) Track (4)



- A 33 What is the most appropriate location on this vessel to hitch (tie) an anchor when mooring?
- A) Location (1)  
B) Location (2)  
C) Location (3)  
D) Location (4)



- B 34 Which position is the least affected by the wake generated by vessel (A) when following behind?
- A) Position Vessel (1)  
B) Position Vessel (2)  
C) Position Vessel (3)  
D) Position Vessel (4)



## 6 Boat Navigation

### 6 2 Boat Knowledge

- D 35 Which definition is correct with respect to the pitch of a vessel?
- A) The draft difference on both sides of bow
  - B) The draft difference between the loaded and unloaded condition
  - C) The depth of the water on both sides of the stern
  - D) The draft difference between the stern and the bow
- C 36 Which statement about vessel steerage and rudders characteristics is incorrect?
- A) Outboard powered vessels rely on the outboard engine for steerage
  - B) Stern drive powered vessels rely on the stern drive (drive unit) for steerage
  - C) Inboard powered vessel rely on rudders set independently from the propeller for greater efficiency
  - D) Water jet powered boats rely on propulsive thrust and thus do not require a rudder for steerage
- C 37 The handling characteristics of a deep V planning hull going at high speed differs from the handling characteristic of displacement type craft going at low speed. What is the heeling tendency for each craft when making a high speed turn?
- A) Both types of crafts heel inward
  - B) Both type of crafts heel outward
  - C) The Planning craft heels inward and the displacement craft heels outward
  - D) The Planning craft heels outward and the displacement craft heels inward
- A 38 To avoid colliding with a field of drift wood sighted on the starboard side of the vessel; The helmsman shifts the engine into neutral. How should he apply the rudder to avoid the drift wood?
- A) Full rudder to starboard
  - B) Dead rudder
  - C) Full rudder to port
  - D) Rudder to Starboard then to port
- D 39 When docking a single engine power driven vessel, approaching on the port side is better than the starboard side. Why is this so?
- A) The starboard side has Better visibility
  - B) Better visibility when looking from starboard to port
  - C) When speed is reduced the bow drops to port
  - D) The prop walk will naturally turn the bow to port
- B 40 Which procedure is incorrect when initiating a turn on a power driven vessel?
- A) Reduce speed before initiating the turn
  - B) When turning stand up and lean in the turn while holding the steering wheel
  - C) Steer deliberately and apply the rudder incrementally
  - D) Do not change course abruptly and be mindful of the steering wheel
- D 41 What is the handling tendency of a planning Deep V craft making a high speed turn to starboard?
- A) The craft heels to port with a loss of speed
  - B) The craft heels to port while the speed remains constant
  - C) The craft heels to starboard while speed remains constant
  - D) The craft heels to starboard with a loss of speed

## 6 Boat Navigation

### 6 2 Boat Knowledge

- D 42 Which precaution is incorrect with respect to anchoring?
- A) The anchorage must be well protected from wind and waves and shall be free of shoals.
  - B) In and out access to the anchorage shall be accessible at all times
  - C) Anchorage with sandy or muddy bottom shall be preferred over rocks and corals
  - D) The anchor must weigh as much as the vessel
- B 43 Which consideration is incorrect when entering a port?
- A) The Destination port and route must be considered.
  - B) Obstructions like shoals must be passed at high speed
  - C) The port traffic must be considered before entering
  - D) The Entrance channel must be clear of departing ships
- B 44 Consider the following propulsion and steering systems and determine which statement is incorrect?
- A) Steering on a water jet powered craft is provided by vectoring the water thrust
  - B) Steering on an inboard powered craft is achieved by directing the propeller shaft
  - C) Steering on a stern-drive powered craft is achieved by turning the drive unit
  - D) Steering on an outboard powered craft is achieved by pivoting the outboard
- A 45 Which condition better describe a vessel that is loaded top heavy?
- A) The vessel rolls very slowly
  - B) The vessel rolls upright very quickly when heeled
  - C) The vessel doesn't heel as much when the rudder is applied
  - D) The vessel is loaded with cargo down below more than usual
- A 46 What condition best describe a bottom heavy vessel?
- A) The cargo hold is fuller than usual
  - B) In a turn the heeling angle is greater than usual
  - C) The vessel rolls slower than usual
  - D) The vessel uprights itself slower than usual
- C 47 Which statement is incorrect with respect to loading and stability of a vessel?
- A) Passenger and cargo stowed above deck raise the vessel's center of gravity
  - B) When cargo is stowed deep below deck the vessel becomes bottom heavy
  - C) A bottom heavy vessel is difficult to right up when heeled.
  - D) Passengers and cargo should be evenly distributed around the vessel
- D 48 Which fact about anchoring and anchors is incorrect?
- A) It's good practice to rinse the mud of the anchor before bringing it on board.
  - B) The anchor and chain must be rinsed prior to storage
  - C) The anchor must be regularly inspected for rust and other defects
  - D) When anchoring, cast the chain overboard before casting the anchor

## 6 Boat Navigation

### 6 2 Boat Knowledge

- B 49 Which criteria is used when deciding the level of lifesaving equipment like fire fighting appliance, navigation instruments etc. to be provided on board a vessel?
- A) Ship's length
  - B) Gross tonnage
  - C) Dead weight
  - D) Displacement
- A 50 The total volume above deck may be excluded from the gross tonnage calculations when the volume above deck is less than
- A) 1 m<sup>3</sup>
  - B) 2 m<sup>3</sup>
  - C) 3 m<sup>3</sup>
  - D) 4 m<sup>3</sup>
- A 51 The open saloon space below the main deck of a sailboat is to be considered in the gross tonnage calculations. How should the rules be applied to this space?
- A) The enclosed space under the main deck can be included under the exemption rule
  - B) The enclosed space under the main deck cannot be included under the exemption rule
  - C) Volume less than 1 m<sup>3</sup> can be included under the exemption rule
  - D) Volume of 1 m<sup>3</sup> or more cannot be included under the exemption
- B 52 An awning above the main deck is connected to the cab on both sides and top to protect the cockpit from the elements. Should the enclosed space thus formed be included in the gross tonnage calculations?
- A) All enclosed spaces including the space formed by the awning should all be included under the rules.
  - B) Possible partial inclusion of enclosed space in accordance with the rules
  - C) The awning has a volume greater than 1m<sup>3</sup> and is to be included under the rule
  - D) The enclosed space formed by the awning can be excluded under the rules
- A 53 what is the threshold in square meters (m<sup>2</sup>) for the cross sectional area of a deck that it may be excluded from the gross tonnage calculations?
- A) 1 m<sup>2</sup>
  - B) 2 m<sup>2</sup>
  - C) 3 m<sup>2</sup>
  - D) 4 m<sup>2</sup>
- C 54 Which item on this pre-departure check list is incorrect?
- A) Sufficient fuel in the tank for the voyage
  - B) Tank fuel vent opened and clear
  - C) All heavy equipment stowed high above deck
  - D) Hatch to be closed and secured
- D 55 Which Item on this check list would prevent you from sailing?
- A) Mooring ropes in good condition
  - B) Hatch properly secured and tight
  - C) Good cabin room ventilation
  - D) Cracks running along the hull.

## 6 Boat Navigation

### 6 2 Boat Knowledge

- C 56 Consider the facts below and determine which item on this pre-departure checklist is inappropriate?
  - A) The flares are in good condition and not expired
  - B) The cockpit drain plug is properly installed and secured (open boat)
  - C) The lifebuoy is secured in the cabin below so that its not washed away by the waves
  - D) The fuel tank is full and properly vented
  
- C 57 Which item on this pre-departure check list is incorrect?
  - A) The propeller(s) must be clear and unobstructed.
  - B) The vessel's roll period must be within the standard
  - C) The transom drain plug must be open (Open type craft)
  - D) The Hatch to be secured tightly
  
- C 58 Which one of the following inspections prior to sailing is incorrect ?
  - A) No damage to mooring ropes
  - B) Heavy load to be placed as low as possible
  - C) Fuel tank breather valve must be close to prevent water ingress
  - D) Hatch to be secured tight

## 6 Boat Navigation

### 6 3 Deck Equipment And Knots

- B 1 A passenger carrying power driven vessel shall have on board at least 2 lifebuoys, with each inscribed with what?
- A) The name of the company that operates the vessel
  - B) The vessel name and port of registration
  - C) The vessel's home port name
  - D) The vessel's tonnage
- A 2 What is the gross tonnage threshold at which Ladders and climbing ropes become mandatory on board a passenger carrying vessel?
- A) Less than 5 gross tonnes
  - B) Above 5 and under 10 gross tonnes
  - C) Between 10 and 20 gross tonnes
  - D) All of the above
- A 3 What is the weight of the anchor mandated by the authorities for a power driven vessels under 5 gross tonnes?
- A) 20 Kilograms
  - B) 25 Kilograms
  - C) 30 Kilograms
  - D) 40 Kilograms
- B 4 What is the weight of the anchor mandated by the authorities for power driven vessels having 5 to under 10 gross tonnes before special exemptions be considered?
- A) 20 Kilograms
  - B) 25 Kilograms
  - C) 30 Kilograms
  - D) 40 Kilograms
- C 5 What is the weight of the anchor mandated by the authorities for a power driven vessel having 10 or more gross tonnes before special exemptions be applied?
- A) 20 kilograms
  - B) 25 kilograms
  - C) 30 kilograms
  - D) 40 kilograms
- D 6 Where is the typical reef knot or square knot often used?
- A) Tethering
  - B) Tying weights
  - C) Man rescue
  - D) Bundling packages

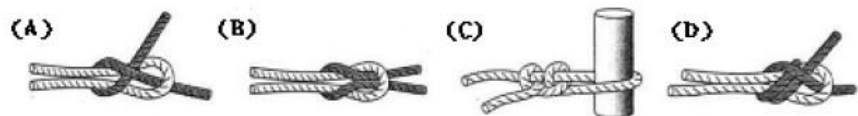


- C 7 Which of the following knots is commonly used for tethering?
- A) Fisherman's knot
  - B) Luban knot
  - C) Clove hitch
  - D) Flat knot
- A 8 Which knot is used for search and rescue?
- A) Bowline knot
  - B) Becket sheet bend
  - C) Clove hitch
  - D) Reef knot

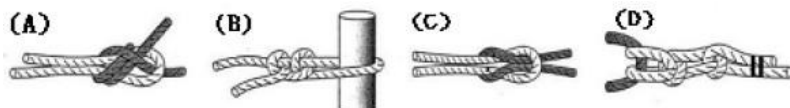
## 6 Boat Navigation

### 6 3 Deck Equipment And Knots

- D 9 Which maintenance step is incorrect with respect to a vessel that was just hauled out of the water?
- A) Scraping and cleaning all the marine growth and slime off the hull
  - B) Checking and replacing all the corroded zinc anodes
  - C) The transom drain plug is removed to allow the bilges to drain
  - D) The hull is immediately painted after it's cleaned and scrubbed.
- B 10 Which of the following facts is incorrect with respect to rope handling?
- A) The ropes should be coiled when not in use
  - B) Wet ropes can be stored when yet
  - C) Cutting the ends of a synthetic fiber with a hot knife can stop it from fraying.
  - D) A length of a rope subject to abrasion should be seethed with old rags for protection.
- D 11 Which one of following knot is named as "Double Sheet Bend"
- A) Knot (A)
  - B) Knot (B)
  - C) Knot (C)
  - D) Knot (D)



- D 12 Which of following knots is a "Fishman's bent" ?
- A) Figure (A)
  - B) Figure (B)
  - C) Figure (C)
  - D) Figure (D)



- C 13 Which one of following knots is named as "Bow Line Knot" ?
- A) Figure (A)
  - B) Figure (B)
  - C) Figure (C)
  - D) Figure (D)



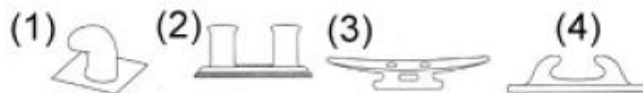
- A 14 What is the knot shown below called ?
- A) Bow Line Knot
  - B) Roof Knot
  - C) Eight Knot
  - D) Overhand Knot



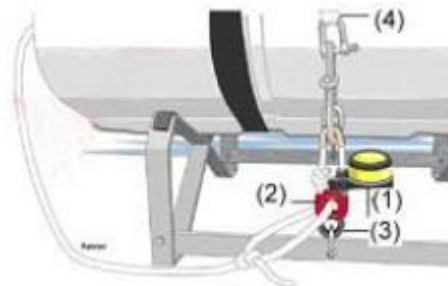
## 6 Boat Navigation

### 6 3 Deck Equipment And Knots

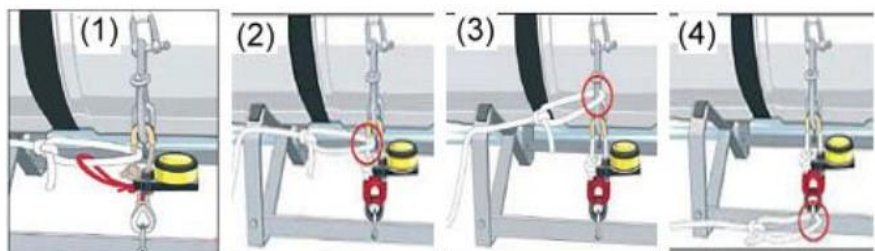
- D 15 Which knot is best used for connecting two ropes of different diameter?  
 A) Clove Hitch  
 B) Hitch  
 C) Eight Knot  
 D) Double Sheet Band
- B 16 Which step is incorrect when carrying maintenance on a hauled vessel?  
 A) Open all hatches and ports to ventilate and dry out the interior  
 B) Paint the inside of the fuel tanks  
 C) Inspect and replace all the corroded zinc anodes  
 D) Remove the transom drain plug to let the bilges drain.
- C 17 Which of the following mooring outfits is a cleat?  
 A) Figure (1)  
 B) Figure (2)  
 C) Figure (3)  
 D) Figure (4)



- B 18 The following picture shows the hydrostatic release mechanism of an inflatable life raft. Which component is the the weak-link connector on the diagram labeled below?  
 A) Component (1)  
 B) Component (2)  
 C) Component (3)  
 D) Component (4)



- A 19 Consider the life raft hydrostatic release mechanism illustrated below and determine which method is correct for securing the painter line?  
 A) Figure (1)  
 B) Figure (2)  
 C) Figure (3)  
 D) Figure (4)



## **6 Boat Navigation**

### **6 3 Deck Equipment And Knots**

- A 20 What is the regular maintenance interval for a life raft?
  - A) 1 year
  - B) 2 years
  - C) 3 years
  - D) 4 years
  
- B 21 What is the replacement interval for a Hammar hydrostatic release device (automatic knife) used on EPIRB and and inflatable life rafts?
  - A) 1 year
  - B) 2 years
  - C) 3 years
  - D) 4 years

## 7 Communication And Emergency

### 7 1 Resilience

- C 1 If a person succumbs to drowning, electrocution, poisoning and other accidents, suffocation or hypoxia can follow within minutes, causing serious damage to the brain cells if first aid is not administered within how many minutes?
- A) 6 minutes
  - B) 8 minutes
  - C) 4 minutes
  - D) 10 minutes
- D 2 A person suffers Life threatening burns when burns cover the body by more than how many percents?
- A) 50%
  - B) 33%
  - C) 25%
  - D) 20%
- B 3 What degree is assigned to a Skin blistering burn?
- A) First degree burn
  - B) Second degree burn
  - C) Third degree burn
  - D) Fourth degree burn
- B 4 What is the classification of fires caused by hydrocarbon based liquids like oil, acetylene gas, LNG, LPG, alcohol, paint, etc?
- A) Class A
  - B) Class B
  - C) Class C
  - D) Class D
- D 5 Which of the following elements doesn't contribute to the fire triangle principle?
- A) Fuel
  - B) Oxygen
  - C) Heat
  - D) Iron
- C 6 What is the lowest oxygen concentration percentage at which fires extinguish themselves?
- A) 8%
  - B) 10%
  - C) 11%
  - D) 12%
- C 7 When tackling flames with a fire hose where should the water stream be directed to extinguish the fire?
- A) Top of the flames
  - B) Around the flames
  - C) Bottom of the flames
  - D) Middle of the flames
- C 8 Which fire extinguishing agent should be used for electrical fires?
- A) Foam
  - B) Dry powder
  - C) Carbon dioxide
  - D) Water column

## 7 Communication And Emergency

### 7 1 Resilience

- D 9 Which recommendation is incorrect with respect to preventing fires in the engine room?
- A) Install the appropriate fire extinguishers
  - B) Prohibit smoking
  - C) Prohibit the storage of oil soaked rags
  - D) Install multiple exhaust fans
- C 10 Which method described below is incorrect for inhibiting combustion (fire)?
- A) Cooling
  - B) Smothering
  - C) Ventilation
  - D) Oxygen starvation
- C 11 Overloaded electrical circuits is the leading cause of fires. Which recommendation is incorrect with respect to maintaining a safe electrical installation?
- A) Comply with electrical equipment specifications and installation requirements
  - B) Do not overload existing electrical circuit with additional equipment
  - C) When the electrical circuit is overloaded increase the fuse capacity
  - D) Use lighting appliance properly.
- D 12 Which of the following recommendation is not a fire prevention measure when using the inboard galley?
- A) Careful handling and storage of cooking fuel
  - B) Careful handling of the stove and cooking utensils
  - C) Careful attention to the galley general tidiness
  - D) Proper storage of food stuff
- B 13 What is the best course of action a crew should follow in the event of a fire arising from a collision or otherwise?
- A) Start evacuating the vessel immediately
  - B) Start suppressing the fire immediately
  - C) Call the port authority
  - D) Call the ship owner
- D 14 When a boat suddenly encounters bad weather, it should come about head to sea and steer appropriately. Which attitude should the vessel adopt for this situation?
- A) Lay the stern to the wave to improve steerage
  - B) Lay bow to the wave to keep stern down to improve steerage.
  - C) Lay stern to the wave and increase speed
  - D) Lay bow to the waves and increase speed
- D 15 Which of the maneuver described below risks capsizing a vessel?
- A) Loading cargo in the holds as low as possible.
  - B) Applying the rudder slowly and progressively in a turn
  - C) Avoiding exposing the vessel broadside to the waves
  - D) Synchronizing the vessel's rolling period with the period of the waves

## 7 Communication And Emergency

### 7 1 Resilience

- C 16 Which fact is incorrect with respect to vessel handling in inclement weather?
- A) A vessel that pitches and heaves too much unloads the propeller (racing)
  - B) A vessel running in a following sea yaws by the stern that rolls in sync with the wave period is safer
  - C) A vessel that rolls in sync with the wave period is safer
  - D) A vessel that plows heavily into the waves must change course and speed
- C 17 Consider the following two statements and determine which recommendation is correct? (a) To reduce the impact of head seas on your vessel reduce speed while maintaining steerage (b) When turning, reduce speed to avoiding heeling and do not lay broadside to the waves.
- A) Only (a) Correct
  - B) Only (b) Correct
  - C) Both (a) and (b) are correct
  - D) Both (a) and (b) are incorrect
- D 18 Which recommendation is your worst option when seeking a port of refuge from bad weather?
- A) A port that is well sheltered from strong winds and large waves
  - B) A port with a broad channel and appropriate water depth
  - C) A Port without shoal or reef
  - D) A port where water depth survey is still incomplete
- C 19 In a head sea and after placing your bow 30 degrees onto the oncoming waves, what should you adjust next while maintaining adequate steerage?
- A) Buoyancy
  - B) Draft
  - C) Speed
  - D) Stability
- D 20 Which of the following recommendations is inappropriate when sailing in bad weather?
- A) Close all ports and hatches
  - B) In a head sea, keep your bow 30 degrees to the waves.
  - C) In a formed sea, reduce speed while maintaining steerage
  - D) Close all deck drainage ports
- C 21 Which boating safety recommendation is inappropriate?
- A) Pay attention to water depth When approaching shoals
  - B) Do not alter course abruptly Except for emergency collision avoidance
  - C) Focus on course keeping look strictly ahead of your vessel
  - D) Proceed with caution when approaching floating debris
- D 22 What should be the immediate course of action that must be taken when a power driven vessel runs aground?
- A) Inspect the hull for damage
  - B) Check tide time and height
  - C) Confirm your position
  - D) Stop the engine immediately

## 7 Communication And Emergency

### 7 1 Resilience

- C 23 What is the most appropriate sequence of actions to take immediately after a grounding? (1) Survey position and tide data, (2) Stop engine, (3) Confirm hull condition  
A) (3) → (1) → (2)  
B) (3) → (2) → (1)  
C) (2) → (3) → (1)  
D) (2) → (1) → (3)
- A 24 Which recommendation is inappropriate when the hull of your vessel is breached while at sea?  
A) If there is water ingress, wear a life jacket, jump into the water and wait for rescue  
B) If there is water ingress, the bilge pumps must be started if not started already.  
C) If the breach is below the water line, Heel the vessel so that emergency repairs can be carried out  
D) Run the vessel aground on a gentle sandy beach
- A 25 Which recommendation with respect to the proper use of life saving equipment is inappropriate?  
A) Life buoys should be permanently secured to the vessel to prevent accidental loss  
B) Retro reflective strips on life saving equipment must be replaced when found defective  
C) The vessel's name must be clearly printed on the life jackets.  
D) Life jackets must not be used as seating cushions or pillows
- A 26 Which measure is inappropriate when a fire is declared on board?  
A) Position the source of fire upwind by turning the vessel around.  
B) Tackle the fire with the on board fire extinguishers  
C) Send a distress signal If the fire can't be controlled  
D) Abandon ship If the fire is rapidly propagating out of control
- B 27 Which life saving equipment must be paired together in order to be the most effective at night?  
A) Rocket parachute flare and a life jacket  
B) Life buoy and an automatic flashing light  
C) Life jacket and an automatic flashing light  
D) Lifebuoy and a buoyant smoke signal
- C 28 Which action is inappropriate with respect to seamanship?  
A) When running aground the engine must be stopped immediately.  
B) when colliding with another vessel, the first priority is rescue  
C) Escape is the first priority when colliding with another vessel  
D) Position the vessel downwind when fighting a fire
- B 29 Based on international standards, what is the emergency response to a day time man overboard (MOB) situation?  
A) A lifebuoy is thrown to the man over board with a length of floating rope  
B) An automatic smoke signal along with a lifebuoy with a length of floating rope is thrown overboard  
C) A life buoy is attached to a floating rope and thrown overboard with an automatic self-lighting light  
D) A Red signal light is attached to a floating rope and then thrown overboard

## 7 Communication And Emergency

### 7 1 Resilience

- C 30 Based on international standards, which of the following emergency response to a night time man overboard (MOB) situation is correct?
- A) A lifebuoy is thrown to the man over board with a length of floating rope to mark the spot
  - B) An automatic smoke signal along with a lifebuoy are thrown overboard to mark the spot
  - C) An automatic self-lighting light along with a lifebuoy are thrown overboard to mark the spot
  - D) A Red signal light is attached to a floating rope and then thrown overboard to mark the spot
- B 31 During cardiopulmonary resuscitation (CPR), what is the longest duration of time chest compression can be paused for before it loses its effectiveness?
- A) 5 seconds
  - B) 10 seconds
  - C) 15 seconds
  - D) 20 seconds
- D 32 What is the depth of chest compression recommended when performing CPR (cardiopulmonary resuscitation) on an adult?
- A) 2 cm
  - B) 3 cm
  - C) 4 cm
  - D) 5 cm
- A 33 In what order should the Four steps of chest compression be administered during cardiopulmonary resuscitation (CPR)? (1) Fast compression, (2) Non-interruption, (3) Chest rebound, (4) With force
- A) (4)→(1)→(3)→(2)
  - B) (4)→(2)→(1)→(3)
  - C) (1)→(4)→(2)→(3)
  - D) (4)→(3)→(1)→(2)
- B 34 how often should rescuers rotate before they get tired when performing chest compression during cardio pulmonary resuscitation (CPR)?
- A) 1 minute
  - B) 2 minutes
  - C) 3 minutes
  - D) 4 minutes

## 7 Communication And Emergency

### 7 2 Emergency Countermeasure

- D 1 Which recommendation is incorrect when applied to a power driven vessel making way into a formed sea
- A) The vessel should maintain The bow 20 to 30 degrees angle in relation to the swell
  - B) The Deck drains must be all open
  - C) All items on board must be properly secured
  - D) Laying the vessel broad side to the waves is inconsequential
- B 2 When you sight the stern light of another vessel ahead of you you are said to be?
- A) Meeting head on
  - B) Chasing
  - C) Crossing
  - D) Undetermined
- C 3 What is the immediately action that must be taken after a collision?
- A) Resume navigation
  - B) Call the relevant authorities
  - C) Assess collision damage
  - D) Notify the ship owner
- A 4 which answer best explains how a vessel capsizes?
- A) Center of gravity shift above the center of buoyancy
  - B) Poor visibility
  - C) On board fires
  - D) Collision impact
- C 5 How should a vessel proceed in the event of a fire?
- A) Adjust course, to place the fire source Windward
  - B) Hold position
  - C) Adjust course, to place the fire source downwind
  - D) Set course back to port
- A 6 Which step is incorrect when dealing with a man overboard situation?
- A) Hold position
  - B) Yell Man over board!
  - C) Throw a life buoy to the man that went overboard
  - D) Initiate a recovery turn immediately
- B 7 Which action should be avoided when your vessel runs a ground?
- A) Stop engine and survey surrounding water depth and bottom type
  - B) Reverse engine at full power
  - C) Survey the vessel for damage
  - D) Check the tide table
- B 8 How should the rudder be applied in response to a man that went over board on the starboard side?
- A) Rudder at mid-ship
  - B) Full rudder to starboard
  - C) Full rudder to port
  - D) Weave

## 7 Communication And Emergency

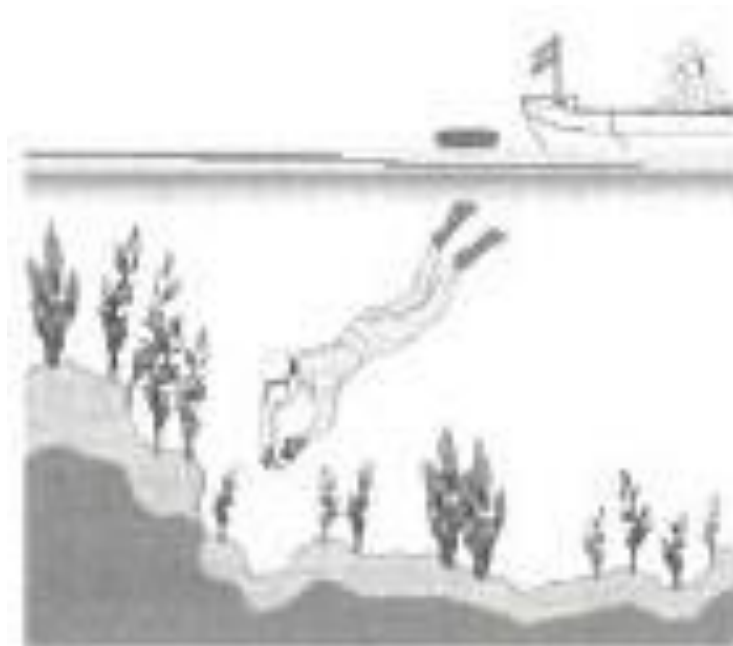
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- B 9 When a boat is being towed by another boat at sea, the streamer used should be how many times the length of both boats?
- A) 2 times
  - B) 3 times
  - C) 4 times
  - D) 6 times
- A 10 What is the main reason vessels collide at sea?
- A) Poor visibility
  - B) Bad weather
  - C) Other factors
  - D) Not following the rules
- D 11 What are the probable sources of a fire on a vessel?
- A) Smoking cigarettes
  - B) Engine room
  - C) Galley (Kitchen)
  - D) All of the above
- D 12 What is the first course of action that must be taken when a vessel loses its propulsion and steering gear?
- A) Check the propulsion and steering gear for possible repairs
  - B) Notify the relevant authorities
  - C) Follow the collision avoidance rules by hanging 2 red lights one over the other by night or 2 black balls by day
  - D) All of the above
- D 13 What should be the immediate response to a man that has fallen overboard on the port side?
- A) Call the coast guard
  - B) Notify the ship owner
  - C) Stop the vessel
  - D) Apply full rudder to port, then throw a lifebuoy with a smoke signal in the direction of the man in the water
- C 14 Which emergency response involving a collision at night is incorrect?
- A) Stop immediately and check the vessel for possible damage
  - B) Trigger the on board alarm to notify the crew
  - C) Apply engines in reverse
  - D) Check for oil leaks
- B 15 Which safety precaution is inappropriate when approaching a vessel engaged in a fishing operation?
- A) Maintain proper lookout when approaching fishing vessels engaged in fishing
  - B) Blast your sound signals to divert a fishing vessel engaged in trawling away from your path
  - C) Proceed with caution around fishing vessels that are either trawling or bottom fishing
  - D) When approaching a vessel engaged in fishing, watch your wake.
- D 16 Which fact about sailing vessels is inaccurate?
- A) A sailing vessel must adjust its course in accordance with wind shifts
  - B) A sailing vessel has a blind spot that changes with the point of sail
  - C) A sailing vessel cannot readily change course or come to a stop
  - D) A sailing vessel cannot make way upwind

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- B 17 Which fact is incorrect when in proximity of a large commercial vessel?
- A) Large vessels have a large turning circle and cannot be readily stopped because of their momentum
  - B) A smaller vessel is safe to approach a larger vessel on the side because of water turbulence
  - C) Large vessels are limited to deep channels because of their limited Under Keel Clearance
  - D) Large vessels have a large blind spot ahead of the bow which makes it difficult for pilot boats to be seen
- D 18 Which safety recommendation is inaccurate when sailing around coastal fisheries?
- A) Fishing nets and bamboo rafts can be difficult to discern around fisheries (fish farms)
  - B) Be mindful of fishing gear extending several meters behind the stern of fishing vessels
  - C) Avoid sailing into a gill net or purse seine which are usually marked with floats or flagpoles.
  - D) A fishing vessel engaged in trawling can be diverted from its course by blasting your whistle
- A 19 Analyze the illustration below and indicate the appropriate answer?
- A) The international signal flag (Alfa) meaning "diver below" is missing
  - B) There is just enough work for one diver, hence the absence of additional crew
  - C) The diver is in shallow water so he doesn't need to worry about decompression time
  - D) The diver should stay clear of the vessel while in the water.



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- C 20 According to the maritime accident statistics for accidents on small passenger vessels, which of the following statement is false?  
A) 80% of maritime accidents occur within 3 nautical miles offshore  
B) Most accidents are caused by human factors involving poor visibility and poor equipment maintenance  
C) More than half of the recorded accidents involve an inexperienced crew while accidents involving experienced crew are few and far between.  
D) The principle cause of death in a wreck involving a MOB situation is
- B 21 According to the maritime accident statistics, of all the maritime accidents involving small passenger boats, what percent of those accidents happen within 3 nautical miles off shore?  
A) About 100%  
B) About 80%  
C) About 20%  
D) About 0%
- D 22 Consider the paired cause and effect statements made up with respect to boating accidents and determine which statement has the cause and effect correctly paired?  
A) Engine failure, improper handling of the ship  
B) Collision, inattention to meteorological walrus,  
C) Capsizing, Unknown vessel position  
D) Grounding, Uncharted waters
- B 23 Consider the statements below and determine which statement has nothing to do with preventing collisions at sea?  
A) Not observing traffic rules  
B) Hull not properly inspected  
C) Improper maneuvering  
D) Insufficient look-out
- C 24 What is the principal cause of engine failure on power driven vessels?  
A) Unconfirmed vessel position  
B) Poor seamanship and vessel operation  
C) Poor engine maintenance  
D) Ignoring weather warnings
- A 25 Which of the following reasons is the most probable cause for boat collisions?  
A) Poor visibility or poor vessel handling  
B) Hull structure and Material  
C) Rapid weather change ignoring weather warning bulletins  
D) Poor maintenance or aging of the hull
- C 26 According to the statistics of maritime accidents, what is the survival rate of personnel wearing life jackets when they are thrown overboard?  
A) 0% survival rate  
B) About 20%  
C) About 80%  
D) About 100%

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- C 27 Consider the following short story and determine the principal cause of the ensuing accident. A yacht 17 meters in length and displacement of 27 gross tonnes is scheduled to make a port call involving open water sailing. On the day of departure a strong gale warning is issued with a possible sea state involving waves three meters high. After studying the weather forecast and taking the gale warning into consideration, the ships captain decided that he could outrun the weather or seek refuge at a port on his route should the weather conditions get worse. When the vessel sailed into open waters, the conditions were so rough and the head winds so strong that the vessel made very little headway, which prompted the captain to decided to turn back, thinking that once he started running downwind back to port that the situation on board the vessel would be more comfortable. In preparation for the turn back to the homeport, The captain switched off the autopilot when the yacht got suddenly broadsided by a wave 5 meter high, which submerged the deck and broke the windshield when the vessel fell in the through. This also resulted in serious injuries to the crew on board...
- A) The accident occurred because the captain didn't study the weather information correctly
  - B) The accident occurred because no gale warning with a strong sea state was issued
  - C) The accident occurred because it's not easy to manually steer a yacht that's over 27 gross tonnes
  - D) The captain failed to use the bow thruster when initiating the turn
- C 28 The following is a story regarding an accident at sea: "the vessel is a twin engined motorboat with an open bridge and a bathing platform on the stern giving the crew easy access to the dinghy when boarding. On the day of the accident, Tom was operating the yacht from the flybridge when he decided to drop anchor for a picnic near the beach. Tom left the engine is neutral while his two guests were busy loading the dinghy with their wear, when he heard screams and looked back to see the dinghy overturned. Tom panicked and wanting to get closer to the dinghy to investigate; he shifted the engines into gear while still at anchor. That's when he struck his guests with the props causing one of his guests to die and the other to be seriously injured... What was the primary cause of the accident?
- A) The anchoring procedure was carried out from the Flybridge
  - B) The engines where left running while at anchor.
  - C) Tom did not make sure the area was clear before shifting the engines into gear
  - D) Tom used both engines when trying to get close to the dingy