

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)
Entrance Examination for Admission to Ph.D/ MS (By Research)

Subject Name: NAUTICAL STUDIES
Date:

Maximum Marks: 120
Time: 2 Hours

INSTRUCTIONS

1. Prior to the commencement of the examination, Candidate should check that this question paper does not have any unprinted or torn or missing pages or items, etc. If so, he has to get it replaced with a complete test booklet.
2. This Question Paper contains 120 questions. Each correct answer gets 1 mark. There correct answer gets 1 mark. There are no negative marks for wrong answers.
3. Candidate has to mark answers only in the OMR sheet provided. Follow the instructions given on the OMR sheet.
4. You have to bubble all your answer in Blue or Black Pen on the separate OMR Answer Sheet provided. See directions in the Answer Sheet.
5. More than one bubbled answer per question will make the question invalid for evaluation.
6. Please note that it is the candidate's responsibility to fill in the Roll Number carefully on the OMR sheet.
7. You have to enter your Roll Number in the Question Paper in the Box provided alongside.
DO NOT write anything else on the Test Booklet.
8. At the end of the examinations both OMR sheet and the Question booklet have to be handed over to the Invigilator.
9. Sheets for rough work are appended in the Question Paper at the end.

Multiple Choice questions in **General Aptitude** for Ph.D / M.S. (By Research)

1. The monthly incomes of X and Y are in the ratio of 4:3 and their monthly expenses are in the ratio of 3:2. However, each saves Rs. 6000/-per month. What is their total monthly income?
 - (a) Rs. 28,000/-
 - (b) Rs. 42,000/-
 - (c) Rs. 56,000/-
 - (d) Rs. 84,000/-

2. Suppose the average weight of 9 persons is 50 kg. The average weight of the first 5 persons is 45 kg, whereas the average weight of the last 5 persons is 55 kg. Then, the weight of the 5th person will be
 - (a) 45 kg
 - (b) 47.5 kg
 - (c) 50 kg
 - (d) 52.5 kg

3. What is the value of x in the following logarithm equation?
 $\log(x+2) - \log(x-1) = \log 2$
 - (a) 5
 - (b) 4
 - (c) 3
 - (d) 2

4. "Price is not the same thing as value. Suppose that on a day the price of everything viz., coal, bread, postage stamps, the taxi fare, the rent of houses etc. were to double. Prices then would certainly rise, but values of all things except one would not."

The writer wants to say that if prices of all things were doubled,

- (a) the values of all things would remain constant.

- (b) the values of the things sold would be doubled.
- (c) the values of all things bought would be halved.
- (d) the values of money only would be halved.

5. During the last summer vacation, John went to a summer camp where he took part in hiking, swimming and boating.

This summer, he is looking forward to a music camp where he hopes to sing, dance and learn to play the guitar. Based on the above information, four conclusions as given below, have been made.

Which one of these logically follows from the information given above?

- (a) John's parents want him to play the guitar.
- (b) John prefers music to outdoor activities.
- (c) John goes to some type of camp every summer.
- (d) John likes to sing and dance.

6. The number of deaths among the army personnel is 8 in 1000, but among the civilian population, it is 20 per 100. Which of the following inferences can be drawn from this statement?

- (a) It is better to join the army.
- (b) The relationship is fortuitous.
- (c) Quality of Life Index is very high within the armed forces.
- (d) The groups can't be compared due to their heterogeneity.

7. A person walks 12 km due north, then 15 km due east, after that 19 km due west and then 15 km due south. How far is he from the starting point?

- (a) 5 km
- (b) 9 km
- (c) 12 km
- (d) 15 km

8. The sum of income of A and B is more than that of C and D taken together. The sum of income of A and C is the same as that of B and D taken together. Moreover, A earns half as much as the sum of the income of B and D, whose income is the highest?

- (a) A
- (b) B
- (c) C
- (d) D

9. As per agreement with a bank, a businessman had to refund a loan in some equal installments without interest. After paying 18 installments he found that 60% of his loan was refunded. How many installments were there in the agreement?

- (a) 22
- (b) 24
- (c) 30
- (d) 32

10. A gardener increased the area of his rectangular garden by increasing its length by 40% and decreasing its width by 20%. The area of the new garden is

- (a) has increased by 20%.
- (b) has increased by 12%.
- (c) has increased by 10%.
- (d) remains exactly the same as the old area.

11. In a meeting, the map of a village was placed in such a manner that south-east becomes north, north-east becomes west and so on. What will south become?

- (a) North.
- (b) North-east.
- (c) North-west.
- (d) West.

12. Running at a speed of 60 km per hour, a train passed through a 1.5 km long tunnel in two minutes. What is the length of the train?

- (a) 200 m.
- (b) 300 m.
- (c) 500 m.
- (d) 800 m.

13. Aditya attempted 12 questions in the examination for Science paper and secured full marks in all of them. If he obtained 60% in the test and all the questions carried equal marks, then what is the number of questions in the test?

- (a) 20.
- (b) 22.
- (c) 24.
- (d) 30.

14. Lead, ingested or inhaled, is a health hazard. After the addition of lead to petrol has been banned, what still are the sources of lead poisoning?

- 1. Smelting unit.
- 2. Pens and pencils.
- 3. Paints.
- 4. Hair oils and cosmetics.

Select the correct answer from the choices given below?

- (a) 1 and 3 only.
- (b) 1, 2 and 3 only.
- (c) 2 and 4 only.
- (d) All of above (1, 2, 3 and 4).

15. Rainbow is produced when sunlight falls on drops of rain. Which of the following physical phenomenon are responsible for this?

- 1. Dispersion.
- 2. Refraction.
- 3. Internal reflection.

Select the correct answer from the choices given below?

- (a) 1 and 2 only.

- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) All of above (1, 2 and 3).

16. The known forces of nature can be divided into four classes, viz. gravity, electromagnetism, weak nuclear forces and strong nuclear forces. With reference to them, which one of the following statements is not correct?
- (a) Gravity is the strongest of the four.
 - (b) Electromagnetism acts only on particles with an electric charge.
 - (c) Weak nuclear force causes radioactivity.
 - (d) Strong nuclear force holds protons and neutrons inside the nucleus of an atom.
17. Acid rain is caused by the pollution of environment by:
- (a) Carbon dioxide and Nitrogen.
 - (b) Carbon monoxide and Carbon dioxide.
 - (c) Ozone and Carbon dioxide.
 - (d) Nitrous oxide and Sulphur dioxide.
18. Salts of which of the following elements provide colour to the fireworks:
- (a). Zinc and Sulphur.
 - (b). Potassium and Mercury.
 - (c). Strontium and Barium.
 - (d). Chromium and Nickel.
19. Which one of the following is the correct sequence of the given substances in the order of their densities?
- (a). Steel>Mercury>Gold
 - (b). Gold >Mercury> Steel
 - (c). Steel> Gold > Mercury

(d). Gold > Steel > Mercury

20. In addition to fingerprint scanning, which of the following can be used in the biometric identification of a person?

1. Iris scanning.
2. Retinal scanning.
3. Voice recognition.

Select the correct answer from the choices given below?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) All of above (1, 2 and 3).

21. The principle on which Optical fibre works is:

- (a) Total internal reflection.
- (b) Scattering.
- (c) Refraction.
- (d) Interference.

22. Diffusion of light in the atmosphere takes place due to which of the following:

- (a) Carbon dioxide.
- (b) Dust particles.
- (c) Helium.
- (d) Water vapour.

23. Which of the following is/are the example(s) of chemical change?

1. Crystallization of sodium chloride.
2. Melting of ice.
3. Souring of milk.

Select the correct answer from the choices given below?

- (a) 1 and 2 only.
- (b) 3 only.
- (c) None of above (1, 2 and 3).
- (d) All of above (1, 2 and 3).

24. “If political leadership fails to emerge, there is likelihood of military taking over power in developing countries. Radical student groups or labour may try to raise revolution but they are not likely to compete with the military. Military intervention, rule, and withdrawal from politics is closely related to a society’s level of political development”

In the context of political development, the assumption in the above passage is that

- (a) Political leadership is not an effective instrument.
- (b) Military fills in political vacuum.
- (c) Military intervention is inevitable for political development.
- (d) None of the above.

25. A military code writes SYSTEM as SYSMET and NEARER as AENRER. Using the same code, FRACTION can be written as:

- (a) CARFTION
- (b) FRACNOIT
- (c) NOITCARF
- (d) CARFNOIT

Maritime Sector

26. The head quarter of the international Maritime Organization is located

- (a) Geneva
- (b) New York
- (c) London
- (d) Washington

27. The International Maritime Organization is an UN body for regulating

- (a) Cargo & defence ships
- (b) Cargo & passenger ships
- (c) Canals & ports
- (d) Ships & ports

28. The largest Indian shipping company in the private sector is

- (a) Great Eastern
- (b) Shipping Corporation of India
- (c) Essar
- (d) Mercator

29. Merchant navy primarily covers

- (a) Defence of the country
- (b) Underwater exploration
- (c) Carriage of goods & passengers
- (d) Managing ports

30. Largest export from India in terms of volume is

- (a) Tea
- (b) Spices

- (c) Iron Ore
- (d) garments

31. Largest import to India in terms of volume is

- (a) Crude Oil
- (b) Grains
- (c) Cement
- (d) Fertilizer

32. Sagarmala is a significant project for

- (a) Connecting Ports
- (b) Improving infrastructure
- (c) Improving logistics
- (d) All of these

33. What is special about an Indian Team which recently circumnavigated the world in a sailing boat?

- (a) All Girl team of 6 Indian Naval officers
- (b) 03 male and 03 female Indian Naval officers
- (c) All men team of 6 Indian Naval officers
- (d) All Girl team of 6 Indian officers, 02 from Navy, 02 from Army and 02 from Air Force.

34. Who became the first Indian woman to receive IMO's Exceptional Bravery Award at Sea?

- (a) Captain S. Nilkeni
- (b) Captain Ruchika Malhotra
- (c) Captain Monika Mehrotra
- (d) Captain Radhika Menon

35. Panama Canal connects

- (a) Atlantic Ocean & Mediterranean Sea
- (b) Atlantic Ocean & Gulf of Mexico
- (c) Pacific Ocean & Atlantic Ocean
- (d) Mediterranean Sea & Red Sea

36. The continent through which all three imaginary lines, e.g. Equator, Tropic of Cancer and Tropic of Capricorn pass through is

- (a) Africa
- (b) Asia
- (c) Europe
- (d) Australia

37. First ship built in an Indian shipyard is

- (a) Loyalty
- (b) Rajendra
- (c) Jal Usha
- (d) Vikrant

38. The accident of Titanic led to the development of which international convention

- (a) SOLAS
- (b) loadline
- (c) MARPOL
- (d) STCW

39. Indian Maritime University has campuses in

- (a) Chennai & Mumbai

- (b) Chennai & Kolkata
- (c) Chennai & Kochi
- (d) All of these

40. For carrying cargo the ship owner earns

- (a) Freight
- (b) Demurrage
- (c) Hire
- (d) Dispatch

41. Bunkering is the process of

- (a) Refueling the ship
- (b) Loading the ship
- (c) Unloading the ship
- (d) Inspecting the ship

42. Rudder is used in ship for

- (a) Moving the ship
- (b) Turning the ship
- (c) Increasing the ship's speed
- (d) Stopping the ship

43. Sea water as ballast is used in ships for

- (a) Maintaining stability of a ship
- (b) when transmitting a distress message
- (c) Cooling of the engines of a ship
- (d) For converting to potable water

44. Main thrust for development and adoption of ISM Code came from the findings of accident involving

- (a) The Herald of Free Enterprise
- (b) Scandinavian Star
- (c) Exxon Valdez
- (d) Amoco Cadiz

45. The ISM Code is mandatory on ships and refers to the

- (a) International Shipping Market
- (b) International Seafarer's Management
- (c) Inter Shipping Management
- (d) International Safety Management

46. Master has the overriding authority and the responsibility to make decisions with respect to

- (a) Pollution prevention
- (b) Safety of the Ship
- (c) Safety and Pollution prevention
- (d) None of these

47. In a radio transmission from a ship 'Roger' means

- (a) I understand you
- (b) I agree with you
- (c) I hear you
- (d) I see you

48. 'Mayday' signal is used in shipping

- (a) when there is more than one emergency
- (b) when transmitting a distress message
- (c) Greeting another passing ship
- (d) Informing the authorities that all is well on board

49. The share of the Indian seafarers in the world is

- (a) 15%
- (b) 12%
- (c) 5%
- (d) 8%

50. Largest shipping company in the world is

- (A) Maersk
- (b) MSC
- (c) Evergreen
- (d) Mitsui OSK

51. The HQ of Directorate General of Shipping is located at

- (a) Chennai
- (b) New Delhi
- (c) Kolkata
- (d) Mumbai

52. Alang is famous for

- (a) Largest Indian Port
- (b) Ship Breaking
- (c) Ship building
- (d) Ship repairing

53. Anchor is used in ship for

- (a) Keeping the ship in one place
- (b) Securing the ship
- (c) Tying the ship with shore
- (d) Decorating the ship

54. Which of the following may be used as fuel in the engines of a ship

- (a) High Speed Oil
- (b) Furnace Oil
- (c) Diesel Oil
- (d) All of these

55. Iron ore is carried in

- (a) Bulk carriers
- (b) Oil Tankers
- (c) Container ships
- (d) General cargo ships

56. Computers are used onboard for

- (a) Marine communication
- (b) ship to shore communication
- (c) shore to ship communication
- (d) All of these

57. Which of the following are the types of ships

- (a) RORO

- (b) Reefer
- (c) Heavy Lift
- (d) All of these

58. Overall command of the ship is with Master who is the

- (a) Ship Manager
- (b) Chief Engineer
- (c) Captain
- (d) Harbour Master

59. The Indian Maritime University was established in

- (a) 2009
- (b) 2008
- (c) 2010
- (d) 2011

60. MS Act stand for

- (a) Merchant Shipping Act
- (b) Merchant Seamen Act
- (c) Marine Surveyors' Act
- (d) Maritime Shipping Act

Multiple Choice Questions in NAUTICAL STUDIES

Tick the correct answer

61. Mixed mooring means

- a) Wire rope is connected to synthetic rope tail by joining shackle
- b) Wire and rope are sent in the same direction in mooring
- c) Mooring ropes forward are wires and aft are synthetic ropes
- d) The vessel is made fast with chain and wires

62. The render load of a winch is

- a) the maximum load a winch can heave.
- b) The load at which winch will stop heaving
- c) The load at which winch will turn in the reverse direction
- d) The load when the winch is put in double gear

63. Dumping of land waste is covered by

- a) Annex 5 of MARPOL
- b) Annex 4 of MARPOL
- c) Annex 2 of MARPOL
- d) None of the above

64. Which of the following is not a part of Annex II of MARPOL

- a) Shipboard Marine Pollution Emergency Plan for Noxious Liquid substances
- b) Procedures and Arrangement Manual
- c) Cargo Record Book
- d) International Oil Pollution Prevention Certificate

65. Navtex messages which can be rejected are

- a) Navigational warning
- b) Meteorological warning
- c) Piracy warning
- d) Meteorological forecasts

66. Preferred method of sailing used for long ocean crossing voyages in East – West direction

- a) Mercator sailing
- b) Plane sailing
- c) Great circle sailing
- d) Any of the above

67. Ratio of Departure to D'long is equals to

- a) Sine Latitude
- b) Cosine Latitude
- c) Tan Course
- d) Tan Distance

68. Nautical Almanac gives the following information about Navigation stars

- a) Distance
- b) Size
- c) Brightness
- d) Colour

69. Venus can be seen only in the mornings or evenings because

- a) it is too far from the Earth
- b) it is too close to the Earth
- c) its orbit around the Sun is smaller than that of Earth
- d) its orbit around the Sun is larger than that of Earth

70. The precautions to be taken while using synthetic ropes are

- a) It should be kept out of direct sunlight
- b) Its melting point is below 100° C, hence should be kept in a cool place.
- c) The knots of synthetic ropes slip easily
- d) It does not float in water.

71. . Floors aboard ship are _____.

- a. frames to which the tank top and bottom shell are fastened on a double bottomed ship
- b. transverse members of the ships frame which support the decks
- c. longitudinal beams in the extreme bottom of a ship from which the ship's ribs start
- d. longitudinal angle bars fastened to a surface for strength

72. A fairway buoy if lighted will show

- a) Fixed red light
- b) Green light
- c) Morse (A) white light
- d) Flashing red light

73. A relative vector on the ARPA will have zero vector length of target vessel when

- a) on the same course as your vessel
- b) the target vessel is stationary
- c) on the same course and speed as your vessel
- d) on the reciprocal course and same speed as your vessel

74. The best information on the location of the blocks when dry docking a vessel is contained in the _____.

- a. shell expansion plan
- b. docking diagram

- c. ship's docking plan
- d. general arrangement plan

75. Uneven heating of the earth's surface is caused due to

- a) Lesser amount of sun's heat reaching the poles.
- b) High specific heat of the sea compared to land
- c) Apogee and perigee of the Sun.
- d) Greater reflectivity at the equator as compared to the polar areas

76. If the liquid tanks are slack

- a) The KG increases
- b) The GM increases
- c) The GZ increases
- d) None of the above

77. Formula for calculating FWA in cms is equal to

- a) $1.025A/100$
- b) $(LB^3/12) \times \text{density}$
- c) $W/40TPC$
- d) $W/4TPC$

78. For a Type B-60 ship the freeboard is reduced

- a) upto 60% of freeboard of a type-A ship
- b) upto 60% of the difference of freeboard of type-A and type-B ships
- c) As per freeboard table given for type-B 60 ships
- d) None of the above

79. A vessel with initial negative metacentric height

- a) will have positive GM after angle of loll
- b) will have negative GM at all angles of inclination
- c) will have positive GM before angle of loll
- d) will have positive GM at angle of lurch

80. Enhanced hull survey program is for

- a) Bulk carriers
- b) Combination carriers
- c) oil tankers
- d) all the above.

81. A charterer is unable to complete the loading of a vessel during the lay days specified in the charter party. Under these circumstances, the

- a) vessel operator can collect demurrage
- b) ship is authorized extra time to discharge the cargo
- c) charterer must pay dispatch money
- d) effective period of the charter is extended

82. A disadvantage of using chain lashing on heavy vehicles aboard Ro-Ro vessels is that it .

- a) can wrap around cargo
- b) is easily damaged
- c) is affected by temperature
- d) does not absorb shock

83. A fire has damaged 20 bales of cotton on a freighter loaded with general cargo. This claim would come under

- a) constructive total loss

- b) general average
- c) particular Average
- d) total loss of a part

84. Which of the following can be considered an act of good seamanship?

- a) Using all radars when proceeding at full speed in fog
- b) Using deck and accommodation lights at sea to illuminate the vessel.
- c) Proceeding on the starboard side of a narrow channel to take advantage of a favourable current.
- d) A vessel underway should keep clear of a vessel at anchor

85. You are heading North. You notice light flashing 9 flashes right ahead. You should

- a) alter course to starboard
- b) alter course to port
- c) proceed in the reverse direction
- d) keep clear of the buoy

86. If two mooring lines are to be placed on the same bollard, which method is BEST?

- a) Place the eye from the forward line on the bollard and then place the eye from the second line directly over the first.
- b) It makes no difference how the lines are placed.
- c) Place the eye from either line on the bollard, and then bring the eye of the other line up through the eye of the first, and place it on the bollard.
- d) Place both eyes on the bollard, in any manner, but lead both lines to the same winch head on the vessel and secure them on the winch.

87. While operating a crane, the stress on the topping lift
- a) increases as the jib is lowered
 - b) decreases as the jib is lowered
 - c) remains the same whether the jib is hoisted or lowered
 - d) depends on the direction of pull
88. Cargo securing is done
- a) by a combination of lashing, shoring and providing anti skid.
 - b) by cross lashing to prevent tipping
 - c) by vertical lashing to prevent sliding
 - d) by structural alteration.
89. The stress on lashing will
- a) increase on the cargo loaded from the centre of the hold to the wings
 - b) decrease on the cargo loaded from the centre of the hold to the wings
 - c) decrease as we go from lower hold to tween deck
 - d) remain the same irrespective of where the cargo is stowed
90. If a hydraulic pump on a winch accidentally stops while hoisting, the load will stay suspended because
- a) check valve will close and prevent reverse circulation
 - b) a centrifugal counterweight counteracts the force of gravity.
 - c) the electric pump motor will cut out
 - d) the control lever will move to the stop position
91. Due to bad weather your vessel ranges along the jetty where you are berthed, resulting in damage to shipside but no damage to the jetty, which surveyor / representative will you call:
- a) P and I club surveyor
 - b) Classification Surveyor
 - c) Port State Control inspector
 - d) Flag State Representative

92. The use of the signal consisting of five or more short rapid blasts on the ship's whistle

- a) requires you to slow or stop
- b) replaces directional signals
- c) indicates doubts as to other vessel's action
- d) makes the other vessel the give –way vessel.

93. Which applicant/s cannot apply for Registration of Indian Ships

- a) Any individual
- b) More than one individual or their agent
- c) Company /Co-op Society by its agents
- d) None of the options listed under a,b,c

94. Which document is not in Registrar's custody when Registration of Indian ships has been done

- a) Surveyor's certificate
- b) Builder's certificate
- c) Certificate for Type approval of major Nautical/Engine equipment
- d) Previous sale certificate(if any)

95. A Shipping Casualty is not deemed to occur when there is

- a) Loss of property/ life at a serving seafarer's home in Indian territory
- b) Loss of life caused by any casualty on/near the Indian coast
- c) Loss of material damage to another ship on near the Indian coast
- d) Any ship is lost on/near the Indian coast

96. The term "Salvage operations" does not include:

- a) Destruction or the rendering a ship harmless which is sunk

- b) The removal, destruction or rendering the cargo of a ship harmless.
- c) Saving lives
- d) The measures taken to minimize loss to a ship or its cargo or both

97. The assured cannot limit his liability as provided under section 352B in respect of:

- a) Claims arising from loss of life or personal injury
- b) Claims arising out of other loss resulting from infringement of contractual rights, occurring in direct connection with the operation of the ship.
- c) Claims arising out of loss resulting from delay in the carriage by sea of cargo.
- d) Claims arising out of other loss occurring in direct connection with salvage operations

98. The validity (from the date of its issue), of a cargo ship safety equipment certificate is

- a) 5 years
- b) 2.5 Years
- c) Life of the vessel
- d) 10 years

99. Under the Maritime Labour Convention as amended, The Government may make rules for

- a) the hours of work and rest in a week
- b) Food and water supplied to seafarer
- c) The minimum wages to be paid to seafarers
- d) all of the above.

100. Following amenities have to be provided to seamen on board ships

- a) Sufficient Stores for maintenance

- b) Sufficient fuel for the voyage
- c) Clean accommodation as per specified area
- d) Internet connectivity

101. World Scale is used for

- a) Calculating freight of oil cargo
- b) Calculating freight of bulk cargo
- c) It is the rate scale of shipping index
- d) The highest freight paid in the world

102. Running Down clause of Marine Insurance deals with

- a) Own ship's repair after collision
- b) Three fourth collision liability
- c) Collision liability towards other vessel
- d) The running damage of the engine

103. Dangers can be indicated on the ECDIS

- a) It can be highlighted
- b) It can be shown by Simplified symbols
- c) It can be shown by traditional symbols
- d) It can not be indicated

104. Stainless steel is preferred in the construction of Chemical tanker tanks because

- a) it is compatible with most of the chemicals and sea water.
- b) it is compatible with most of the chemicals but not sea water
- c) it is compatible only with sea water
- d) It provides high tensile strength

105. The reliability of ENC is obtained from

- a) Annual Notice to Mariners
- b) Information is given in the chart below the title
- c) Sailing direction
- d) Table of Zone of Confidence

106. Sloshing means

- a) Liquid moving at high velocity
- b) Free surface effect of liquid
- c) Violent splashing of liquid
- d) Excessive pressure in pipe line

107. Threshold limit value TWA

- a) concentration of harmful gases in air to which a person may be exposed for 8 hours per week
- b) Concentration of gas can be exposed to 15 minutes at a time with break of one hour between exposure
- c) Concentration safe to work continuously
- d) concentration of harmful gases in air to which a person may be exposed for 8 hours per day and 40 hours per week

108. A vessel will have high course directional stability with

- a) the vessel has low Length to beam ratio
- b) the vessel has high Length to beam ratio
- c) the vessel has high beam to draft ratio
- d) the vessel has low beam to draft ratio

109. A balanced rudder

- a) reduces the load on the steering gear
- b) improves the steering ability of the vessel
- c) is effective for turning while going astern
- d) increases the rudder area ratio

110. Liability and Compensation International Convention on Civil Liability for Oil Pollution Damage 1969 is not exempted for

- a) Pollution caused by non commercial vessels
- b) Pollution caused due to Natural Disaster.
- c) Accidental pollution caused due to no fault of the ship
- d) Pollution caused due to Act of War

111. As per MLC 2006, the Minimum hours of rest should be

- a) 72 Hours in any 7 days period
- b) 14 Hours in any 24 hours period
- c) 10 Hours in any 24 hours period and 77 Hours in any 7 days period
- d) 10 Hours in any 24 hours period and 70 hours in any 7 Days period

112. Despatch Money is paid

- a) by charterer to ship owner on a bulk carrier when he exceeds the loading and discharging time
- b) by ship owner to charterer on a tanker when loading and discharging is in a shorter period than agreed
- c) by the terminal to the ship owner when the loading and discharging time is shorter period than agreed
- d) by the ship owner to charterer on a bulk carrier when loading and discharging is in a shorter period than agreed

113. In case of salvage, if the salvor invokes SCOPIC

- a) the ship owner or his insurer must provide 3 million dollars within two working days of invoking SCOPIC
- b) the shipowner or his insurer must provide 4 million dollars within three working days
- c) the shipowner or his insurer must provide 2 million dollars within three working days
- d) the shipowner or his insurer must provide 2 million dollars within three working days

114. In case a salvor invokes SCOPIC clause, he cannot claim under

- a) Article 12 of Salvage convention
- b) Article 13 of Salvage convention
- c) Article 14 of Salvage convention
- d) Under LOF

115. Winter North Atlantic Load Line is required on ships

- a) Less than and equal to 100 m length
- b) More than 100 m length
- c) More than 150 m length
- d) Less than 150 m length.

116. Given summer draft is 9.6 m distance between tropical and winter load line mark equal to

- a) 20 cms
- b) 30 cms
- c) 40 cms
- d) Data insufficient.

117. In draft survey 1st trim correction is applied because

- a) The mean of means draft is not same as draft at the Centre of flotation
- b) The mean of means draft does not consider trim
- c) The mean of means draft does not consider hull deformation
- d) All of the above

118. When X-band radar has failed while approaching port

- a) Inform class, make risk assessment and seek dispensation
- b) Inform flag, make risk assessment and seek dispensation
- c.) Inform technical managers, make risk assessment and seek dispensation
- d) Inform coastal state, make risk assessment and seek dispensation

119. During heavy weather if lifebuoy falls overboard...

- a) Do nothing, just replace with spare
- b) Replace with spare and inform company
- c) Replace with spare and inform MRCC
- d) Replace with spare and inform class

120. Two tugs, are positioned at the forward and after stations. If the ship gives a kick astern which of the tug shall have more effect.

- a) As the pivot point is Aft the Aft tug shall be more effective
- b) As the pivot point is forward the forward tug shall be more effective
- c) As the pivot point is Aft the forward tug shall be more effective.
- d) As the pivot point is forward the Aft tug shall be more effective