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Indian Maritime University
(A Central University, Govt of India)

Supplementary Examinations – March/April 2024

Programme Name: B Sc (NS)

Semester: V

Subject Code: UG21T5503

Subject Name: Life Saving & Fire Fighting Appliances

Date: 04.04.2024

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Options, if any, are specified in the respective section.

Section A

Ten MCQs of 01 Mark each – Choose the correct answer as applicable.

1. What is the expiry period for pyrotechnics from the date of manufacture?
 - a) 36 months
 - b) 24 months
 - c) 18 months
 - d) 30 months
2. What is the minimum capacity of an inflatable life raft?
 - a) 6 persons
 - b) 8 persons
 - c) 4 persons
 - d) 5 persons
3. AFFF stands for
 - a) Aqueous Film Forming Foam
 - b) Automatic Film Forming Foam
 - c) Aqueous Froth Forming Foam
 - d) Aqueous Fat Forming Foam
4. What is required in addition to the heat, fuel, and oxygen of the fire triangle to sustain a fire?
 - a) Smoke
 - b) Pressure
 - c) Chain reaction
 - d) Electricity
5. Which shipboard equipment will detect a signal from a SART?
 - a) S-Band Radar
 - b) X-band Radar
 - c) AIS receiver
 - d) The auto-alarm
6. The fuel capacity in a life boat should be sufficient for

- a. 3 kts speed and 12 hours duration
 - b. 6 kts speed and 4 hours duration
 - c. 3 kts speed and 24 hours duration
 - d. 6 kts speed and 24 hours duration
7. What is maximum capacity of a life boat?
- a) 90 persons
 - b) 150 persons
 - c) 120 persons
 - d) 30 persons
8. For fixed gas fire extinguishing systems, excessive pressure is released in
- a) Adjoining compartment
 - b) Open atmosphere
 - c) CO₂ Room
 - d) None of the options
9. The lifeline of a breathing apparatus is connected by
- a) a Bowline
 - b) a Clove hitch
 - c) a D shackle
 - d) a snap hook
10. You are on watch at night in port and discover a fire in no. 1 hold. Which action should you take FIRST?
- a) Call Master and Chief officer
 - b) Start Fire alarm
 - c) Call Port control
 - d) Close hatch cover

Section B

(Marks: 2x5=10)

11. Explain the Drill Planner and its purpose.
12. List the pyrotechnics carried by a ship
13. What is International Shore Connection and its purpose? What are its Outer and inner diameter dimensions?
14. What is an International Shore Connection?
15. What is an EEBD?

Section C

Answer any 5 out of 7 Questions

16. a) Describe markings on a Life raft container (5 marks)
 b) What are the contents of an On-board maintenance manual for LSA? (5 marks)
17. Explain the method of launching a life raft by Davit launched method. List the service requirements of a Life raft. (10 marks)

18. Explain components of an "Inert Gas System" with their purpose. (10 marks)
19. a) Describe Class A-60 division (5 marks)
b) Compare advantages and disadvantages of Heat and Flame detectors. (5 marks)
20. a) Describe working of a Water sprinkler firefighting system. (5 marks)
b) Draw a CO2 type fire extinguisher naming all parts (5 marks)
21. a) Describe markings on a portable fire extinguisher (5 marks)
b) Describe contents of Fireman's outfit (5 marks)
22. a) Describe issues to be considered when fighting fire on board when in port. (5 marks)
b) Explain "Ionization" method used for smoke detector (5 marks)

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