

Indian Maritime University

(A Central University, Govt of India)

B Sc (Nautical Science)

May-June 2018 End Semester Examinations

Semester-IV

Life Saving & Fire Fighting Appliances- UG21T3401

Duration:3 Hrs

Max Mark:70 Marks

Date: 04.06.2018

Pass Mark:35 Marks

PART A (answer all questions)

Q1 Choose the correct answer

2X5=10 marks

a) Which of the following is not a Personal life saving appliance?

- A) Life Jacket
- B) Life buoy
- C) Life raft
- D) Immersion suit

b) Which is effective in dealing with gas fire on deck

- A) Carbon dioxide
- B) Mechanical Foam
- C) Chemical Foam
- D) Dry Chemical Powder

c) Fire detectors working on bi metallic expansion principle are

- A) Smoke detectors
- B) Flame detectors
- C) Heat detectors
- D) Gas detectors

d) Portable Foam Fire extinguisher shall have capacity of at least

- A) 9 Litres
- B) B)9kg
- C) C) 5 Litres
- D) D) 5 kg

e) Which of the following techniques is/are used to extinguish fire

- A) Smothering
- B) Starving
- C) Cooling
- D) all the above

PART B (ANY 6 from Q2 to Q8)

Q2 Fill in the blanks

1X10=10 marks

a) The automatic release mechanism for Life rafts when ship sinks is

b) The craft used for marshalling all the survival crafts is

c) The electricity produced on dissimilar materials through physical contact and separation is termed as_____

d) The minimum concentration of a vapour in air which can form an explosive mixture is called the _____

e) The fire detectors installed in stairways, corridors escape routes with in accommodation space in a cargo ship are ----- detectors

f) The expansion of **AFFF** is -----

g) The section of the fire water main with in machinery space from rest of the fire main in ship is separated by -----

h) Back flow towards machinery spaces of cargo vapours in an Inert Gas system is prevented by -----

i) When the fire alarm sounds crew members assemble at _____

j) -----is to make the ship personnel acquainted with the equipment and methods that are to be used during a crisis situation.

Q3 (a) What is Man Overboard Marker? (5 Marks)

(b) Distinguish between On load release mechanism & Off load release mechanism for Lifeboat? (5 Marks)

Q4 (a) What is the significance of Fire triangle? (5 Marks)

(b) Explain how the Fire hazard is minimized in a ship? (5 Marks)

Q5 (a) Describe working of flame detectors? (5 Marks)

(b) What is a foam applicator? How it functions? (5 marks)

Q6 (a) What is the purpose & specifications of International shore connection? (5 Marks)

(b) What are the constituents of fire fighter's outfit (5 Marks)

Q7 (a) Describe a fixed foam system for fire fighting on deck fitted in Tanker ships? (5 Marks)

(b) What are the precautions to be taken before releasing Carbon dioxide to machinery space? (5 Marks)

Q8 (a) What is the importance of Fire Control Plan? (5 Marks)

(b) What are the different teams formed for fire fighting in ships and explain their duties? (5 Marks)