

INDIAN MARITIME UNIVERSITY
(A Central University Government of India)

B Sc (Nautical Science)

June July 2019 End Semester Examination

Semester IV

Life Saving & Fire Fighting Appliances - UG21T3401

Date : 24.06.2019

Max Marks : 70 Marks

Duration : 3 Hrs

Pass Mark : 35 Marks

(Question 1 is compulsory, solve any six question from remaining seven)

Part A – Answer all questions (5x2 Marks)

Q1. Choose the correct answer

a. When you saw a man overboard from your ship, which life saving appliance you throw to him during night.

- A: Life raft
- B: EPIRB
- C: Life Bouy with out light.
- D: Life bouy with self igniting light

b. Three things are essential to start and sustain Fire : What are they?

- A: Air : Co2 : Fuel
- B: Fuel : Water : Oxygen
- C: Nitrogen : Air : Heat
- D: Air : Heat : Fuel

c. What are the most common elements used to detect fire

- A: Heat ; Smoke and flame
- B: Fuel : Heat : Smoke
- C: Smoke : Flame : Air
- D: Flame : Fuel : Temperature

d. What type of solutions are using in Foam Portable Five extinguishers.

- A: Aluminum citrate and sodium magnate
- B: Sodium sulphate and Aluminum Bicarbonate
- C: Carbon dioxide and Aluminum sulphate
- D: Aluminum sulphate and sodium bicarbonate

e. What is the FIRE ALARM signal on board.

- A: Seven short Blast on ships whistle
- B: Three long blast on ships horn
- C: One long blast followed by five short blast.
- D: Continuous ringing of the ship's bell.

Part B – (Any 6 Q2 to Q8)

Q2. Fill in the blanks

(1 x 10) 10 marks

- a. Outer diameter of life buoy is.....and inner diameter not Less than.....
- b. Items are called Pyrotechnics.
- c. Smoke detectors which operate when smoke obscures..... falling on a photo electric cell.
- d. The expansion of EPIRB
- e. The expansion of SCBA
- f. Starvation means removal of the.....side from the fire triangle.
- g.are the four types of portable extinguishers usually found on board ship.
- h. An emergency fire pump is located from the machinery space and with independent means of power.
- i. The accommodation areas are filled with sprinkler heads which both..... fires.
- j. The inert gas is used to.....the oil cargo during discharging operations.

Q3.

- a. Explain on load mechanism and off load mechanism of life boat (5 marks)
- b. What are the contents of emergencies muster list (5 marks)

Q4.

- a. What are the passive and active method provided on board ship as design regulations the case of fire safety. (5 marks)
- b. Define, conduction, radiation and convection. (5 marks)

Q5.

- a Describe Automatic sprinkler system (5 marks)
- b What are the type of foam and explain action of High expansion foam. (5 marks)

Q6.

- a What is the purpose and specification of international shore connection. (5 marks)
- b What are the items consists of fireman outfit. (5marks)

Q7.

- a What are the requirements for conduct of fire drills. (5 marks)
- b How to prevent fire hazards in the machinery space. (5 marks)

Q8.

- a What precaution to be observed during re-entry after putting off fire by using fixed foam system. (5 marks)
- b Explain step by step procedure for fighting "Galley Fire" (5 marks)