10MR663 USN

## Sixth Semester B.E. Degree Examination, June/July 2017 Ship Fire Prevention and Control

Max. Marks: 100 Time: 3 hrs.

> Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

## PART - A

Draw the vapour concentration and temperature diagram, indicating flammable region, UFL, LFL, flash point, non-flammable region and explain limits of inflammability in brief.

(15 Marks)

b. Write 2 advantages and disadvantages of following fire extinguisher.

i) water ii) CO2 iii) Foam iv) DCP.

(05 Marks)

a. Explain ionisation fire detection systems in brief with necessary sketches. (10 Marks) 2

b. List standard fire test.

(05 Marks)

Explain electrical installation on board.

(05 Marks)

Explain venting system onboard, with neat sketch.

(10 Marks)

Explain the following:

i) Fire doors

ii) Requirements for fighting fire.

(10 Marks)

Explain with neat sketch: 4

> CO<sub>2</sub> flooding system a.

Water mist suppression system.

(20 Marks)

## PART - B

- Explain with sketches, construction, working of following portable extinguishers: 5
  - i) Gas pressurized water type

ii) Carbon dioxide type.

(14 Marks)

Explain international shore coupling.

(06 Marks)

Explain with labeled sketch inert gas system for tankers. 6 a.

(14 Marks) (06 Marks)

Explain Fiuman's outfit, its use and care.

Prepare a muster list specifying duties of every crew members on a cargo ship for fire in 7 (20 Marks) accommodation.

Explain the following in brief: 8

i) Fire precaution

ii) Fire drill.

(10 Marks)

- b. Explain role of following during occurrence of fire,
  - i) team leader
  - ii) bridge team
  - iii) emergency team
  - iv) support team
  - v) first aid/back up team.

(10 Marks)