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***B.Tech. Degree VI Semester Examination in
Marine Engineering June 2014***

MRE 603 SHIP FIRE PREVENTION AND CONTROL

Time : 3 Hours

Maximum Marks : 100

(All questions carry *EQUAL* marks)

(5 x 20 = 100)

- I. (a) Explain in detail fire chemistry and the principles of fire fighting. (10)
 (b) Describe the classification of fire and describe the types of fire extinguishing agents used for extinguishing each class of fire. (10)
- OR**
- II. Write short notes on:
 (i) Fire tetrahedron (7)
 (ii) Spontaneous combustion (7)
 (iii) Importance of flammability limits (6)
- III. Explain the principles of selection of fire detectors and discuss in detail the different types of fire detectors used in the engine room. (20)
- OR**
- IV. Describe in detail the fire safety precautions to be taken on board cargo sips during working. (20)
- V. Explain in detail precautions to be taken against shock, fire and other hazards of electrical installations used onboard a ship. (20)
- OR**
- VI. As per SOLAS convention, what are the statutory requirements for fire fighting systems and equipments on different vessels? (20)
- VII. Write short notes on:
 (i) Breathing apparatus – types, uses and principles. (7)
 (ii) Fireman's outfit – its uses and care. (7)
 (iii) Dry chemical powder type portable fire extinguisher. (6)
- OR**
- VIII. Explain with sketches the different types of fixed fire fighting installations used onboard ships. (20)
- IX. Explain with sketches what are the special precautions to be taken for prevention/ fighting fire in a gas carrier ship. (20)
- OR**
- X. Write short notes on :
 (i) Fire signal and muster (6)
 (ii) Fire drills and maintenance of fire fighting equipments – importance (7)
 (iii) Fire fighting in ports and dry-docks. (7)