

INDIAN MARITIME UNIVERSITY
(A Central University, Government of India)

May/ June 2017 End Semester Examinations
B.Tech. (Marine Engineering) Sixth Semester
(AY 2009-2014 batches)

Ship Fire Prevention and Control (UG11T1601/ UG11T2601)

Date : 12.06.2017

Maximum Marks: 100

Time: 3 Hrs

Pass Marks : 50

PART – A (10 x 3=30 marks)

(All questions are compulsory)

1. (a) Explain the term LFL.
- (b) State the reasons why water cannot be used as extinguishing agent on class B fire.
- (c) Explain Fire Damper.
- (d) Brief about Fire control Plan and its locations on ship.
- (e) List out the actions after noticing smoke coming from purifier room, during your engine room routine watch rounds.
- (f) Explain the purpose of conducting fire drills on board ship.
- (g) What are the conditions for automatic activation of water high mist fixed fire fighting system for a particular zone, also mention locations from where you can activate it manually.
- (h) Define the term intrinsically safe.
- (i) List the important factors which are mentioned in an Hot Work Permit.
- (j) What are the functions of an IG Scrubber tower?

PART – B

Marks: 5 X 14=70

(Answer any 5 of the following)

2. (a) As per the regulation, write down the specifications of an class
A-60 Bulkhead (7 Marks)
(b) Explain standard Fire Test (7 Marks)
3. (a) Draw and explain the principal of operation of any one type of
Smoke detector (7 Marks)
(b) With a neat sketch explain the requirement for an International Shore
Coupling (7 Marks)
4. (a) Draw a fixed fire fighting water sprinkler system used in the
passenger vessel and explain its operation (10 Marks)
(b) List the advantages of High mist system over conventional water
sprinkler system. (4 Marks)
5. (a) Draw a neat sketch and explain the operation of a engine room CO₂
fixed fire fighting system. (10 Marks)
(b) Explain the procedure to be carried out before releasing CO₂ in to
machinery space. (4 Marks)
6. (a) Draw a Sectional view and label the parts of a DCP type portable fire
extinguisher. (10 Marks)
(b) Explain the safeties provided in portable fire extinguishers. (4 Marks)
7. (a) Name the various teams in a ship's organisation during fire emergency
situation mentioning in detail the members present, duties, functions
and muster locations of each of the teams. (10 Marks)
(b) Explain EEBD (4 Marks)
8. (a) With help of a block diagram explain the operation of an IG system
of an oil tanker vessel using boiler flue gas. (10 Marks)
(b) Draw and explain a wet type deck seal (4 Marks)
