

Students Exam No: _____

GANPAT UNIVERSITY
B.Tech. Semester IV (Marine Engineering)
Regular Examination June -2014
02MR 402 Ship Fire Prevention & Control

Date: 15/05/2014

Time-3 HOURS

Total Marks : 70

- INSTRUCTIONS:** (1) Attempt all questions.
(2) Assume suitable data where necessary
(3) Figures to the right indicate full marks
(4) Start New Question on New Page
(5) Total Pages in the Question Paper : 4
(6) Draw and Explain with diagrams where required

Section-I

Q-1: Answer the Following (12)

- a) Explain in Brief6
- i) Portable CO₂ Fire Extinguisher
- ii) Portable Foam Type Extinguisher
- b) Explain Various Classes of Fire and control measures to arrest Fire6

OR

Q-1: Answer the Following (12)

- a) Operational Checks to be performed before donning SCBA and method of Donning SCBA6
- b) Briefly Describe about Fresh Water Sprinkler System and how it operates6

Q-2 Attempt following :

(11)

- a) Explain following Terms (Any three)6
- i) Nozzles and Sizes
 - ii) Emergency Fire Pump
 - iii) Mobile Fire Extinguishers
 - iv) SCBA
- b) Define Following5
- i) Bi-Metallic Type Fire Detector
 - ii) Rate of Rise Temperature Detector

OR

Q-2 Attempt following

(11)

- a) Describe following6
- i) "B" Class Divisions
 - ii) "A" Class Divisions
- b) What do you understand by FTP Code ? When was the same adopted and by which resolution .
.....5

Q-3 Answer following

(12)

- a) Describe in detail about Fixed Carbon Dioxide Fire Fighting system on board6
- b) Describe in Brief about different types of Smoke Detectors6

Section-II

Q-4: Attempt any two

(12)

- a) Name all Chapters of SOLAS6
- b) Explain in Brief danger of CO2 and action to be taken when CO2 alarm is sounded6
- c) Explain following terms.....6
 - i) Positive Pressure type SCBA
 - ii) Life Line and meaning of 1, 2 and 3 pulls

OR

Q-4: Attempt any two

(12)

- a) Explain Following6
 - i) Action of foam on Fire
 - ii) Machinery Spaces of Category A
 - iii) Safe Area
- b) Define Following Terms6
 - i) Oil Fuel Unit
 - ii) Main Vertical Zones
 - iii) Non – Combustible Material
- c) Explain with Diagram Fixed CO2 installation onboard Vessels6

Q-5 Attempt Following

(11)

- a) Explain Following Terms 6
 - i) Fire organization onboard ships
 - ii) Smothering effect and cooling effect
- b) Give full form of the following:5
 - i) FTP Code
 - ii) LNG and LPG
 - ii) EEBD
 - iv) FIRE
 - v) FSS Code

OR

Q-5: Answer following

(11)

- a.) Describe with diagram chemical foam extinguisher.....5
- b.) Explain what actions would you take when you see a fire onboard vessel6

Q-6 Attempt following -

(12)

- a) Describe operation of Emergency Fire Pump and requirements with respect to Emergency Fire pump as per SOLAS6
- b) Answer Following6
 - i) Narrow Spray, Wide Spray and Full Shield
 - ii) Name different Types of Fire Detectors

END OF PAPER