

# ONE TIME EXIT SCHEME

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10MR71

## Seventh Semester B.E. Degree Examination, April 2018 Advanced Marine Technology

Time: 3 hrs.

Max. Marks: 100

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

### PART – A

- 1 a. What are the mandatory alarms and monitoring systems in UMS ships for (i) fuel oil, (ii) lubricating oil, (iii) turbo charger, (iv) piston cooling, (v) cylinder cooling systems of the main propulsion system. (10 Marks)
- b. Briefly explain the mandatory requirements for UMS ships as per SOLAS. (10 Marks)
- 2 a. What are the four types of containment systems used on LNG carriers? Draw and explain any one. (10 Marks)
- b. Explain with the help of a sketch, cascade direct cycle Reliquification cycle used for fully refigerated cargoes. (10 Marks)
- 3 a. What is an ESD (Emergency Shutdown) system? When will the ESD be activates? Give examples. (10 Marks)
- b. What is an E-motor room? Explain its layout with the help of a neat sketch. (10 Marks)
- 4 List the safe practices on broad chemical tankers when handling Noxious chemical cargoes. (20 Marks)

### PART – B

- 5 a. Briefly explain the following:
  - i) Pre-Marpol tanker
  - ii) Marpol tanker(10 Marks)
- b. Draw and explain an Inert gas system present on an oil tanker. (10 Marks)
- 6 a. With the help of a neat diagram, explain the mid-skip section of a car carrier. (10 Marks)
- b. Explain the two types of dilution ventilation used in car carriers. (10 Marks)
- 7 What is a combination bulk carrier? Explain the two types with the help of a detailed sketch. (20 Marks)
- 8 a. What is a MAPEX system? Explain briefly the MAPEX-CR and MAPEX-PR system. (10 Marks)
- b. With the help of a neat diagram, explain the key features of a RT-flex common rail fuel system. (10 Marks)

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