

## ***B.Tech. Degree VIII Semester Examination in Marine Engineering July 2013***

### **MRE 801 SAFE WATCH KEEPING AND PREPARATION FOR CLASS IV EXAMINATION**

Time : 3 Hours

Maximum Marks : 100

- I. (a) Enumerate the salient changes in STCW 2010 compared to STCW 95. (8)  
(b) What are the basic principles to be observed in keeping an engineering watch on board a general cargo ship? (12)

**OR**

- II. What are the differences in watch keeping at port, at sea, at anchorage, or during navigation in congested waters and restricted visibility? (20)

- III. (a) List out the statutory certificates maintained on board a merchant ship on international trade. (10)  
(b) Identify the various aspects covered by those certificates. (10)

**OR**

- IV. Explain the different surveys (special/intermediate/annual) to be carried out on sea going vessels in detail. Elaborate the periodicity of each survey and the window period provided. (20)

- V. Explain Flag State Control and Port State Control inspections. Give typical reasons for the detention of a ship in port. (20)

**OR**

- VI. Define substandard ship. How are such ships identified by the authorities? Give examples of 'clear grounds'. (20)

- VII. What steps will you take as a watch keeper at sea in the event of the following emergencies? (4 × 5 = 20)  
(i) A small oil fire in the engine room  
(ii) Engine room bilge level increasing suddenly  
(iii) Black out  
(iv) Main engine lubricating oil pressure dropping.

**OR**

- VIII. List the parameters to be checked in the following machineries before taking over watch at sea. (4 × 5 = 20)  
(i) Air compressor  
(ii) Generating plant  
(iii) Steering gear  
(iv) Main engine turbo charger

- IX. Write short notes on: (5 × 4 = 20)  
(i) Preventive maintenance of machinery  
(ii) Gross tonnage and net tonnage  
(iii) Load Line Survey  
(iv) MARPOL 73/78  
(v) COLREG

**OR**

- X. Write short notes on: (5 × 4 = 20)  
(i) RPS rule  
(ii) SOLAS  
(iii) ISPS code  
(iv) DOC and SMC  
(v) IMO

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