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***B.Tech. Degree VIII Semester Examination in Marine Engineering
July 2018***

**MRE 1801 SAFE WATCH KEEPING AND ENGINE ROOM RESOURCE MANAGEMENT
(2013 Scheme)**

Time: 3 Hours

Maximum Marks: 100

(5 × 20 = 100)

- I. (a) What are the major modifications introduced in STCW 2010 in addition to earlier visions? Indicate the needs. (8)
- (b) What are the basic principles to be observed in keeping engineering watch as a junior engineer on board general cargo ships? (12)
- OR**
- II. (a) Define "Fitness for duty". Specify possible reasons to refuse to hand over watch to your reliever. (8)
- (b) Describe the duties and responsibilities of a watch keeping engineer concerning safety and protection of marine environment. (12)
- III. (a) Discuss the factors to be considered for deciding the composition of an engine room watch. Mention the competency certificates required for each member of the watch. (12)
- (b) What is meant by "Engine room log book"? Why is it necessary? What are the parameters recorded in that? (8)
- OR**
- IV. Write short notes on:
- (a) Periodic checks of machinery (7)
- (b) Preventive maintenance (6)
- (c) Navigation in congested water and during restricted visibility (7)
- V. Narrate the procedure of taking over an engineering watch of a tanker at sea. Indicate possible observations which may lead to actions immediately after taking over watch. (20)
- OR**
- VI. Explain in details the different surveys (special/intermediate/annual) to be carried out on sea going vessels. Also explain the periodicity of each survey and the grace time provided. (20)
- VII. Write short notes on:
- (a) International conventions and national legislation (8)
- (b) Engine room resource management (6)
- (c) Importance of timely decision making (6)
- OR**
- VIII. Write short notes on:
- (a) Relevance of team work on board ship (8)
- (b) Work load management (6)
- (c) Multinational crew (6)

(P.T.O.)

- IX. Explain the ship board man management structure of an ocean going merchant ship. Enumerate the elements of Human Resource Management. (20)

OR

X. Write short notes on:

- (a) Planning and co-ordination (8)
(b) Effective communication (6)
(c) Situational awareness (6)
