

Candidate's Name:

Ports and Maritime Organization
Seafarers' Examination and Documents Directorate
Exam Code: TEGK - 946

Subject : General Engineering Knowledge
Rank : Third Engineer Officer

Date: 1394 .08.24
Time allowed: 3.0 Hrs

(Pass mark: 90)

- Q.1)** - a) - Sketch a typical fresh water generator (6M)
b) - Explain effect of salt carry over & brine density. (2M)
c) - State on operational evaporator vacuum and temperature limits. (4M)
- Q.2)** - a) - State all entries that must be made in Oil Record Book (7M)
b) - Explain why it is required to always have an updated Oil Record Book on board the ship. (7M)
- Q.3)** - a) - Draw a cross-section of a gear pump and explain its operation. (6M)
b) - State characteristic differences between a gear pump and a reciprocating pump. (6M)
- Q.4)** - a) - State the differences between ferrous and non-ferrous metals (6M)
b) - Suggest a suitable material for a purifier shaft with reasons. (6M)
- Q.5)** - With reference to refrigeration system state adverse effects of:
a) - Over-charge of cooling media. (7M)
b) - Under-charge of cooling media. (7M)
- Q.6)** - Explain the safe procedure for entering a fuel oil service tank in engine room. (12M)
- Q.7)** - a) - Sketch a shell and tube type heat exchanger and label its parts. (10M)
b) - Explain its limitations in service. (2M)
- Q.8)** - Explain the requirements and testing procedure for shipboard Unmanned Machinery Space operation. (12M)