

Marine Engineering (Module II)

PART II

Marks : 10

Codes and Specification

1. Knowledge of National legislation, Indian Merchant Shipping Act, knowledge of international legislation & regulations (SOLAS, MARPOL, STCW, LL, CLC etc.).
2. ISO 9000 & ISM code & ISPS code
3. Safety regulation, procedure & how to confirm the same as per conventions.
4. P & I Clubs/ Charter party / Marine Insurance
5. Official log books and procedures relating to entries.
6. Ship surveys and inspections for - charterworthiness/ class / port state control / flag state control / coast guard.
7. Classification Societies and their functions. Certification and documents as per international conventions. How / when / validity and other aspects .
8. Ship's stability - damage stability - IMO regulations
9. Recent amendments to the various international conventions on safety, pollution prevention and liability and compensation.
10. various ILO conventions relating to shipping
- 11 Ballast water management convention.
12. Marine Casualties and their investigation and consequent impact or international and national legislations
13. Cargo gear requirements

Marine Engineering (Module II) -- continued

PART III

Marks : 50

1. Emergency Preparedness for - Oil spill, fire, flooding, collision, grounding and accidents involving personal
2. Economizing of fuel consumption, including diesel engine, fuel oil combustion simulator
3. Knowledge of planned maintenance in ISM code. Repair management, Engine room man management, Machinery performance testing and interpretation results - Corrective action.
4. Inventory Management including spares / stores / lead time. Inventory of lub - oil, fuel oil. Availability, quality and management of same.
5. Record making, keeping and interpretation for complete engine room with regard to maintenance / operation / personal
6. Computer and its application in modern shipping
7. Training of Trainers. Chief Engineer as trainer for engine room staff.
8. Human Relations & Modern Management principles - prevention of human error - crisis management on board ships.
9. Materials in Ship building and repair
10. Tribology in Marine applications
11. Developments in propulsion system
12. Elements of welding and NDT.
13. Dry Docking