

B.E. Mechanical Engineering, Semester - V.

Marine Engineering – II (UBMEC02)- Question Bank

UNIT - 1

Part – A

1. What is a pump?
2. Mention the types of pumps?
3. What is centrifugal pump?
4. What is Gear pump?
5. What is Wear Ring?
6. What is cavitation?
7. What is reciprocating pump?
8. What is piston pump?
9. What is expansion joint?
10. What is ballasting?
11. What is deballasting?
13. Name any three types of valves?
14. What is MGPS & ICCP?
15. What is Stress Corrosion?
16. What is deposit attack?
17. What is selective corrosion?

18. What is Galvanic Corrosion?
19. What is erosion corrosion?
20. Name any three color codes for pipes in engine room?

Part – B

1. Draw a Centrifugal pump?
2. Sketch a Gear Pump?
3. Sketch a reciprocating piston pump?
4. Sketch a screw pump?
5. Briefly explain cavitation and mention its causes?
6. Draw a SDNR Valve?
7. Sketch a mechanical seal?
8. Explain Sketch a Globe Valve?
9. Sketch a Quick Closing Valve?
10. Sketch a butterfly valve?
11. Sketch a Gate valve?
12. Write short notes on corrosion?
13. Briefly explain how pumps are classified?
14. Mention various color codes for pipes in engine room?

15. Explain about air ejectors with a diagram?

Part – C

1. Sketch a Centrifugal pump and explain it?
2. Sketch and explain a Gear Pump?
3. Explain the classification of pumps?
4. Draw and explain a Gate Valve?
5. Draw and explain a Quick Closing Valve?
6. Explain about the materials used for pipe lines and types of corrosion?

UNIT - 2

Part – A

1. What is the use of air compressor in ship?
2. Mention the types of heat exchangers?
3. What is heater?
4. What is condensor?
5. What is evaporator?
6. What is cooler?
7. What is hydrophore tank?
8. What is calorifier?
9. How will you convert purifier into clarifier?

10. What is Purifier?
11. What is Clarifier?
12. What is bilge?
13. What is STP?
14. What is Incinerator?
15. What is Galley Equipments?
16. What is composite boiler?
17. What is filter?
18. Mention the types of Boiler?
19. What is Strainer?
20. What is OBS/OWS?

Part – B

1. Sketch a 2 Stage Air Compressor?
2. Write short notes on Waste Heat Recovery System?
3. Sketch the lubrication system for main engine?
4. Explain about boiler gauge glass blow through procedure?
5. What is blow down and explain its types?
6. Sketch a Plate Type Heat Exchanger?
7. Sketch a Shell & Tube Heat Exchanger?
8. Sketch a purifier?
9. What is heat exchanger? Explain about its types?

10. Explain about galley equipments?
11. Draw a Sewage Treatment Plant?
12. Sketch a Oily Water Separator?
13. Explain about composite boiler?
14. Sketch and explain hydrophore and calorifier?
15. Sketch an Incinerator?

Part – C

1. Sketch and explain a 2 Stage reciprocating air compressor?
2. Sketch and explain ballast system?
3. Sketch and explain Bilge System?
4. With a neat sketch explain Sewage Treatment Plant?
5. Draw and explain a purifier?
6. Sketch and explain a Oily Water Separator?

UNIT - 3

Part – A

1. What is heliograph?
2. Mention any three deck machineries?
3. What is Windlass?
4. What is Mooring?

5. What is Electric Winch?
6. What is Derricks?
7. What is Capstan?
8. Mention the types of hatch cover?
9. What is COPT, WBPT & EBP?
10. What is COW?
11. What is Life Boat?
12. What is Life Raft?
13. What is Lifebuoy?
14. What is the use of davit?
15. What is HRU?
16. Expand EPIRB and SART?
17. What is Water Tight Doors?
18. What is Stabilizers?
19. What is Bow Thruster?
20. Expand GMDSS & AIS?

Part – B

1. Draw a Electric Winch?
2. Sketch a Windlass?
3. Sketch a Life Boat Davit?

4. Sketch a Life Raft?
5. Briefly explain about the types of Life Boat?
6. Briefly explain SOLAS and LSA code Requirements for lifeboat?
7. State the Markings on a Life Raft container?
8. Explain about Markings on an inflatable Life Raft?
9. Write short notes on SART?
10. Write short notes on EPIRB and its types?
11. Write short notes on Maintenance of EPIRB?
12. Write short notes on Water Tight doors and its types?
13. Write short notes on Ship stabilizers ?
14. With a neat sketch explain Bow Thruster?
15. State the advantages and disadvantages of Bow Thruster?

Part – C

1. Sketch and explain a Windlass?
2. What is COW operation? With a neat sketch explain the loading and unloading operation in Oil Tanker??
3. Sketch and explain a Life Raft?
4. With a neat sketch explain Various types of hatch covers?
5. Explain about Testing and maintenance of EPIRB?
6. With a neat sketch explain a general features, location and functioning of the SART?

UNIT - 4

Part – A

1. What is Steering Gear?
2. What is the purpose of steering gear?
3. Mention the types of steering gear?
4. What is 2 Ram Steering Gear?
5. What is 4 Ram Steering Gear?
6. What is Rotary Vane Steering Gear?
7. How anchor cables measured?
8. What is control equipment?
9. What is Power Unit?
10. What is transmission to the rudder stock?
11. What is tele-motor?
12. What is Electro Hydraulic Steering Gear?
13. Mention the material used for anchor chain?
14. What is transmitter unit?
15. What is receiver unit?
16. Name the materials used for tele-motor system?
17. Mention any three properties of tele-motor hydraulic fluid?

18. What is rudder angle indicator?

19. Mention the use of Shackles?

20. What is the use of Chain Blocks?

Part – B

1. Sketch 2 Ram Steering Gear?

2. Sketch 4 Ram Steering Gear?

3. Sketch a Oil Lubricated stern tube?

4. Draw Shafting Arrangement?

5. Sketch a Rotary Vane Steering Gear?

6. State the properties of tele-motor hydraulic fluid?

7. What are the objectives of shaft and shaft couplings?

8. Write short notes on tele-motor system?

9. Briefly explain about various types of steering system?

10. Sketch a Oil Lubricated stern tube?

11. Sketch Shafting arrangement?

12. Write short notes on general maintenance and inspection requirements for engine room crane?

13. Write short notes on safety features of engine room crane?

14. Write short notes on shackles and lifting eyes?

15. Sketch a Chain Block?

Part – C

1. Sketch and explain 2 Ram Steering Gear?
2. Sketch and explain 4 Ram Steering Gear?
3. Sketch and explain a Oil Lubricated stern tube?
4. Draw and explain Shafting Arrangement?
5. Sketch and explain a Rotary Vane Steering Gear?
6. Explain about safety features of engine room crane?

UNIT-5

Part – A

1. What is Fire Triangle?
2. What is AFFF?
3. Mention the Classes of Fire?
4. What is BLEVE?
5. When CO2 flooding is carried out in engine room ?
6. Name some portable fire fighting system?
7. Name some fixed fire fighting system?
8. What is UMS Class ship?
9. What is Refrigeration?

10. What is Primary Refrigerant?
11. What is refrigerant?
12. What is COP?
13. What is secondary refrigerant?
14. What is defrosting?
15. What is Thermostatic Expansion Valve?
16. Name 4 refrigerant?
17. What is the purpose of drier?
18. What is oil reclaimer?
19. What are the refrigeration rooms in ship?
20. Mention the temperatures in which the refrigeration rooms are maintained?

Part – B

1. Write short notes on types of compressor?
2. Write short notes on Classes of Fire?
3. Briefly explain about types of refrigerant?
4. Write short notes on UMS Class Ship?
5. Sketch Drier and explain?
6. Sketch Oil Separator and explain?
7. Sketch and explain Oil Reclaimer?

8. Write short notes on properties of refrigerant?
9. Sketch Thermostatic Expansion Valve?
10. Explain the procedure for charging of refrigerant?
11. Write short notes on Gas Leak Detection?
12. Sketch a Sprinkler System?
13. Sketch a Main Fire Line in ship?
14. Write short notes on Fire Fighting appliances and Prevention in ships?
15. Write short notes on Heat Exchangers?

Part – C

1. Draw and explain a Marine Refrigeration system?
2. Explain about various Fire Fighting Systems in ship?
3. Draw and explain Vapor Absorption System?
4. Explain about the properties of refrigerant?
5. Sketch and explain a Main Fire Line in ship?
6. Sketch and explain Sprinkler System?