

UNIT-II

Economics of Power Generation

1. The sum of the continuous ratings of all electrical equipment connected to a system is called:
- A) Maximum Demand
 - B) Connected Load
 - C) Demand Factor
 - D) Diversity Factor

Answer: B

2. The highest demand recorded on a power station during a given period is known as:
- A) Average Load
 - B) Connected Load
 - C) Maximum Demand
 - D) Peak Factor

Answer: C

3. Demand Factor is defined as:
- A) Maximum Demand / Connected Load
 - B) Connected Load / Maximum Demand
 - C) Average Load / Maximum Demand
 - D) Maximum Demand / Average Load

Answer: A

4. Load Factor is the ratio of:
- A) Maximum Demand to Average Load
 - B) Average Load to Maximum Demand
 - C) Connected Load to Maximum Demand
 - D) Average Load to Connected Load

Answer: B

5. Diversity Factor is always:
- A) Less than 1
 - B) Equal to 1
 - C) Greater than 1
 - D) Equal to 0

Answer: C

6. A high load factor indicates:
- A) Poor utilization of plant capacity
 - B) Better utilization of plant capacity
 - C) Increased losses only
 - D) High connected load only

Answer: B

7. Which curve shows variation of load with time?
- A) Capability Curve
 - B) Load Curve
 - C) V-Curve

D) Power Curve

Answer: B

8. The load duration curve is obtained by:
- A) Arranging loads in descending order of magnitude
 - B) Arranging loads in ascending order
 - C) Plotting voltage versus time
 - D) Plotting frequency versus time

Answer: A

9. Base load power plants are designed to:
- A) Supply peak demand only
 - B) Operate continuously throughout the day
 - C) Operate during emergencies only
 - D) Supply reactive power only

Answer: B

10. Which of the following is generally used as a base-load plant?
- A) Diesel Plant
 - B) Gas Turbine Plant
 - C) Nuclear Plant
 - D) Standby Generator

Answer: C

11. Peak load plants are operated:
- A) Continuously
 - B) Only during periods of high demand
 - C) Only during maintenance
 - D) At no-load condition

Answer: B

12. Which power plant is most suitable for peak load operation?
- A) Nuclear Plant
 - B) Gas Turbine Plant
 - C) Thermal Plant
 - D) Steam Plant

Answer: B

13. The area under the load curve represents:
- A) Maximum Demand
 - B) Generated Voltage
 - C) Energy Generated
 - D) Diversity Factor

Answer: C

14. Fixed cost of a power station includes:
- A) Fuel Cost
 - B) Lubrication Cost
 - C) Salaries and Interest on Capital
 - D) Water Charges

Answer: C

15. Running cost mainly depends upon:

- A) Installed Capacity
- B) Land Cost
- C) Energy Generated
- D) Building Cost

Answer: C

16. Which of the following is a running cost?

- A) Depreciation
- B) Interest on Capital
- C) Fuel Cost
- D) Insurance Charges

Answer: C

17. Tariff means:

- A) Cost of Generator
- B) Method of Charging Consumers for Electricity
- C) Maximum Demand
- D) Cost of Transmission Line

Answer: B

18. The tariff that consists of a fixed charge and an energy charge is called:

- A) Flat Rate Tariff
- B) Two-Part Tariff
- C) Block Rate Tariff
- D) Power Factor Tariff

Answer: B

19. Increasing the diversity factor generally:

- A) Increases plant capacity requirement
- B) Reduces plant capacity requirement
- C) Has no effect
- D) Increases losses only

Answer: B

20. The number and size of generating units are selected primarily to:

- A) Increase voltage
- B) Improve economy and reliability
- C) Reduce frequency
- D) Increase transmission losses

Answer: B

Fill in the Blanks

1. The total connected rating of all electrical appliances is called _____.

Answer: Connected Load

2. The highest demand recorded during a specified period is known as _____.

Answer: Maximum Demand

3. Demand Factor = Maximum Demand / _____.
Answer: Connected Load
4. Load Factor = Average Load / _____.
Answer: Maximum Demand
5. Diversity Factor = Sum of Individual Maximum Demands / _____.
Answer: Maximum Demand of the System
6. A load factor always has a value less than or equal to _____.
Answer: One (1)
7. The graphical representation of load variation with time is called a _____.
Answer: Load Curve
8. The area under a load curve represents the _____ generated.
Answer: Energy
9. In a load duration curve, loads are arranged in _____ order.
Answer: Descending
10. A power plant supplying continuous demand is called a _____ load plant.
Answer: Base
11. A power plant supplying short-duration high demand is called a _____ load plant.
Answer: Peak
12. Nuclear power plants are generally used as _____ load plants.
Answer: Base
13. Gas turbine plants are commonly used as _____ load plants.
Answer: Peak
14. Expenses that do not depend on energy generated are called _____ costs.
Answer: Fixed
15. Fuel expenses are classified as _____ costs.
Answer: Running
16. Interest on capital investment is a part of _____ cost.
Answer: Fixed
17. The cost of electrical energy supplied to consumers is determined through a _____.
Answer: Tariff
18. In a two-part tariff, the consumer pays a fixed charge and an _____ charge.
Answer: Energy
19. A higher load factor results in better _____ of the generating plant.
Answer: Utilization
20. Proper selection of the number and size of generating units improves system _____ and economy.
Answer: Reliability