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**5th Sem. / Electrical  
Subject : Power System**

Time : 3 Hrs. M.M. : 60

**SECTION-A**

**Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)**

Q.1 Which of the following plants will have the highest capital cost?

- a) Nuclear Power Plant    b) Diesel Power Plant
- c) Thermal Power Plant    d) None of these

Q.2 Power from generating stations is carried over long distance through

- a) Distribution lines    b) Transmission Lines
- c) Substations            d) None of these

Q.3 Which of the following D.C. Distribution system is simplest and cheapest in first cost?

- a) Radial                b) Inter connected
- c) Ring Main            d) All of these

Q.4 The value of power factor may be

- a) More than one
- b) Less than one
- c) More or Less than one
- d) None of these

Q.5 The area under the load curve represents

- a) System Voltage      b) Current
- c) Energy consumed    d) Maximum demand

Q.6 An over excited synchronous motor operates at

- a) Leading power factor
- b) Lagging power factor
- c) Unity power factor
- d) 0.5 lagging power factor

**SECTION-B**

**Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)**

Q.7 An indoor substation is \_\_\_\_\_ expensive than outdoor substation.

Q.8 Load factor of a plant is generally \_\_\_\_\_ than unity

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- Q.9 Heavier the conductor, smaller will be the sag.  
(True/False)
- Q.10 Steam turbine converts \_\_\_\_\_ energy in to \_\_\_\_\_ energy.
- Q.11 A line which connects the consumer to the supply is called distributor. (True/False)
- Q.12 Power factor is the ratio of \_\_\_\_\_ to apparent power.

### SECTION-C

**Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)**

- Q.13 Name & Explain different types of line supports used for overhead lines.
- Q.14 Compare HVAC transmission system VS HVDC transmission system.
- Q.15 Define the following terms:-  
a) Power system      b) Power factor
- Q.16 What is sag in overhead lines? What is the importance of sag?
- Q.17 What are the requirements of a good Distribution system?

- Q.18 Name all the types of faults occur in overhead system.
- Q.19 What are the functions of Substation?
- Q.20 What are the disadvantages of low power factor?
- Q.21 Define Tariff and Name different types of Tariff.
- Q.22 Discuss any four advantages and disadvantages of Diesel Power Station.

### SECTION-D

**Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)**

- Q.23 Write a short note on :-  
a) Merits & demerits of nuclear Power Plant.  
b) Advantages of Interconnection of power stations
- Q.24 What is Substation? Name and explain various components of Pole Mounted Substation?
- Q.25 Describe Murray Loop test for location of Earth fault and short circuit fault in underground cable.