

No. of Printed Pages : 4  
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**6th Sem / MECHANICAL ENGINEERING**  
**Subject : POWER PLANT ENGINEERING**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which of the following is equal to the maximum demand? (Co1)

- a) The ratio of area under curve to the total area of rectangle
- b) The ratio of area under curve and number of hours
- c) The peak of the load curve
- d) The area under the curve

Q.2 Moderator in nuclear plants is used to (CO4)

- a) reduce temperature
- b) extract heat from nuclear reaction
- c) Control the reaction
- d) cause collision with the fast-moving neutrons to reduce their speed

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221764C

Q.3 Which type of turbine is used in a hydro power plant? (CO4)

- a) Gas turbine
- b) Reaction turbine
- c) Steam turbine
- d) Wind turbine

Q.4 What is MPPT in solar power plants? (CO5)

- a) Maximum Power Point Tracker
- b) Minimum Power Point Tracker
- c) Main Power Plant Terminal
- d) Mechanical Power Plant Transformer

Q.5 Which of the following is related to nuclear power plants? (CO4)

- a) Solar cell
- b) Nuclear fission
- c) Wind turbine
- d) Diesel engine

Q.6 Which of the following power plants uses a combustion chamber? (CO2)

- a) Hydro power plant
- b) Gas turbine power plant
- c) Solar power plant
- d) Wind power plant

(2)

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### SECTION-B

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

- Q.7 Define demand factor . (CO1)
- Q.8 Name any two types of nuclear fuels used in nuclear power plant . (CO4)
- Q.9 Name one type of coal-burning method used in thermal power plants. (CO3)
- Q.10 Name one component of a gas turbine . (CO4)
- Q.11 Write full form of WECS . (CO5)
- Q.12 Name types of nuclear reaction used in nuclear power plant . (CO4)

### SECTION-C

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

- Q.13 Explain the various factor affecting the operation of power plant. (CO1)
- Q.14 Write the disadvantages of nuclear power plant . (CO4)
- Q.15 Explain electrostatic precipitation system. (CO3)
- Q.16 Write the advantages of gas turbine power plant. (CO4)

(3)

221764C

- Q.17 What are the factor affecting distribution of wind energy. (CO5)
- Q.18 Describe the classification of Hydro-electric power plant. (CO2)
- Q.19 Explain the greenhouse effect . Discus its control. (CO6)
- Q.20 Explain Maximum power point tracker in solar power plant. (CO5)
- Q.21 Compare solar power plant with conventional power plant. (CO5)
- Q.22 Explain pumped storage plant. (CO2)

### SECTION-D

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

- Q.23 Explain the construction and working of pressurized water reactor with neat diagram. (CO4)
- Q.24 Explain the general layout and working of thermal power plant (CO3)
- Q.25 Explain nuclear waste disposal methods and the effects of nuclear radiation, along with methods to reduce pollution from nuclear power plants. (CO6)

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221764C