

- Q.25 Explain the significance of water pre-heater and air pre-heater.
- Q.26 Explain coal handling and ash handling system in thermal power plants.
- Q.27 Tell the classification of nuclear reactors. Explain any one.
- Q.28 Explain the different types of turbine used in hydro electric power plant.
- Q.29 Explain the base load and peak load power plant.
- Q.30 Define load factor. How it effects the cost of generation
- Q.31 Explain the concept of water tube boiler.
- Q.32 Explain the concept of regional grid.
- Q.33 Give the classifications of hydraulic turbines.
- Q.34 Explain why hydroelectric power plants are known as multipurpose plants?
- Q.35 List the various factors that affect the cost of electric power generation.

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the comparison of all power plants.
- Q.37 Draw layout of nuclear power plant & Explain each part of it in detail.
- Q.38 Explain the Working of Thermal Power Plant with a block diagram.

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### Power Station Engineering Subject:- Electric Power Stations

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The controls rods in the control system of nuclear reactors are used to
- Absorb excess neutrons
  - Control fuel consumption
  - Control temperature
  - All of these
- Q.2 The Cheapest power plant in operation and maintenance is
- Nuclear power plant
  - Hydroelectric power plant
  - Diesel power plant
  - Thermal power plant
- Q.3 Diversity factor value is
- Always less than 1
  - always greater than 1
  - Unity
  - None of these
- Q.4 Penstock is used in
- Thermal power plant

- b) Nuclear power plant
  - c) Hydroelectric power plant
  - d) Gas power station
- Q.5 Hydroelectric power plant is best suited as:
- a) Base load plant
  - b) Stand by plant
  - c) general purpose plant
  - d) All of these
- Q.6 Nuclear power plant is situated in
- a) Narora                      b) Dehradoon
  - c) Hyderabad                d) All of these
- Q.7 \_\_\_\_\_ is a nonconventional Energy Sources
- a) Coal                        b) Diesel oil
  - c) Wind                      d) both A and B
- Q.8 Plants are synchronized at
- a) 60 HZ                      b) 50 HZ
  - c) 440 HZ                    d) both A and B
- Q.9 Turbine used for High head Hydroelectric Power plant:
- a) Pelton Wheel turbine
  - b) Kaplan turbine
  - c) Francis turbine
  - d) None
- Q.10 Economisers improve boiler efficiency by
- a) 1 to 5 %                    b) 4 to 10 %
  - c) 10 to 12%                d) None of these

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The ratio of average load to maximum load is known as \_\_\_\_\_ factor.
- Q.12 1 ev = \_\_\_\_\_
- Q.13 Graph of variation of load on a plant w.r.t time is called \_\_\_\_\_
- Q.14 \_\_\_\_\_ power plant is free from environmental pollution problem.
- Q.15 One fusion of U causes a release of \_\_\_\_\_ Mev of energy.
- Q.16 Electron volt is the unit of \_\_\_\_\_.
- Q.17 Capacity factor is \_\_\_\_\_ than one.
- Q.18 Area under the load curve gives the total energy generated(T/F)
- Q.19 Pulverization of coal is currently the favored method of preparing coal for burning (T/F)
- Q.20 Cost of Fuel comes under the running charges (T/F)

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain two part tariff and Flat rate tariff.
- Q.22 Explain nuclear chain reactions.
- Q.23 Differentiate conventional and Non conventional energy sources.
- Q.24 What are the factors to be considered for the selection of nuclear power plant.