

- Q.26 Explain the use of water and air preheater.  
 Q.27 What is Controlled chain reaction?  
 Q.28 Why the hydro-electric power plants are suited for both base load and peak load operations?  
 Q.29 What is forebay and what for it is provided?  
 Q.30 Explain the significance of economizer.  
 Q.31 Explain the concept of fire tube boiler.  
 Q.32 What is SCADA system?  
 Q.33 Explain various types of tariffs.  
 Q.34 What is the difference between micro, and mini hydro?  
 Q.35 Write a note on non-conventional energy sources.

#### **SECTION-D**

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

- Q.36 What are the methods for improving thermal efficiency of gas turbine plant?  
 Q.37 Explain the Process of interconnection of power station. Write its advantages. What are National Grid and Regional Grid?  
 Q.38 Write short notes on following  
   a) Tariff  
   b) Base load and peak load power station

No. of Printed Pages : 4  
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**5th Sem / Branch : Power Station Engg.**  
**Sub. : Electrical Power Stations**

Time : 3Hrs.

M.M. : 100

#### **SECTION-A**

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

- Q.1 \_\_\_\_\_ is the ratio of kWh generated to the product of plant capacity and the number of hours for which the plant was in operation.  
   a) Diversity Factor    b) Load duration curve  
   c) Plant capacity Factor d) Plant use factor  
 Q.2 Spill ways used in \_\_\_\_\_  
   a) Thermal power plant  
   b) Nuclear power plant  
   c) Hydro electric power plant  
   d) Gas power plant  
 Q.3 A hydroelectric power station is commonly found in  
   a) Grasslands    b) Hilly areas  
   c) Desert areas    d) Swamps  
 Q.4 Coal used in power plant is also known as \_\_\_\_\_  
   a) Steam power plant    b) Charcoal  
   c) Soft coal    d) Coke

- Q.5 Which power plant normally operates at high speeds?  
 a) Diesel engine plant  
 b) Petrol engine plant  
 c) Steam turbine plant  
 d) Hydro electric power plant
- Q.6 Which of the following components help to increase the efficiency of a boiler?  
 a) Safety valve      b) Water level indicator  
 c) Steam stop value    d) Economizer
- Q.7 Which power plant has instant starting\_\_\_\_\_?  
 a) Nuclear      b) Thermal  
 c) Diesel      d) None of these
- Q.8 A load curve indicates  
 a) Average KWH during the period  
 b) Average power during the periods  
 c) Both A and B  
 d) None of these
- Q.9 When a neutron leaves the nucleus, its mass \_\_\_\_\_.  
 a) Triples      b) Increases  
 c) Decrease      d) Same
- Q.10 Which of the following is not a part of the diesel engine power station:  
 a) Fuel tank  
 b) Lubrication system  
 c) Air Intake  
 d) Surge tank

### SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Expand UHV \_\_\_\_\_.  
 Q.12 Demand factor is \_\_\_\_\_ than unity.  
 Q.13 What is a fuel?  
 Q.14 What is National Grid?  
 Q.15 Define flat rate tariff.  
 Q.16 The function of nuclear reactor is to control chain reaction. (True/False)  
 Q.17 Cost of Fuel comes under the fixed charges (True/False)  
 Q.18 Define Surge Tank.  
 Q.19 What is the advantage of air pre heater.  
 Q.20 Control rods are made of \_\_\_\_\_.

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write short note on Ash disposal management and its utilization.  
 Q.22 Give the advantages of nuclear power plant.  
 Q.23 Give the disadvantages of hydro power plant.  
 Q.24 What is the role of a hydro-power plant in power industry?  
 Q.25 Explain what do you understand by Nuclear power station.