



## BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – Dip.EE-2022

Course Name – Introduction to Electric Generation Systems

Course Code - DEEPC304

( Semester III )

Full Marks : 30

Time : 1:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 5=5

1. Choose the correct alternative from the following :

- (i) Tell that penstock in a hydroelectric power plant is
- |   |  |
|---|--|
| a) a pipe connected to runner outlet                      | b) nozzle that release high pressure water on turbine blades |
| c) a conduit connecting forebay to scroll case of turbine | d) a pipe connecting surge tank to dam                       |
- (ii) Tell in what form is solar energy radiated from the sun?
- |                          |                       |
|--------------------------|-----------------------|
| a) Ultraviolet Radiation | b) Infrared radiation |
| c) Electromagnetic waves | d) Transverse waves   |
- (iii) Identify which of the following is equal to the maximum demand?
- |   |  |
|---|--|
| 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                          |
- (iv) Choose the common energy source in Indian villages is:
- |                |                         |
|----------------|-------------------------|
| a) Electricity | b) Coal                 |
| c) Sun         | d) Wood and animal dung |
- (v) Select in a steam power plant water is used for cooling purposes in
- |                  |                                |
|------------------|--------------------------------|
| a) economizer.   | b) condenser.                  |
| c) super-heater. | d) electrostatic precipitator. |

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. State the function of ESP in power plant. (3)
3. Explain about load curve. (3)
4. State the steps to design PV system. (3)
5. Explain the working principle of nuclear power plant. (3)

6. How are hydroelectric power plant classified. (3)

**OR**

Explain briefly about medium head hydel power plant.

(3)

**Group-C**

(Long Answer Type Questions)

5 x 2=10

7. Describe the block diagram of thermal power plant with necessary diagram.

(5)

8. Explain why economiser and air preheaters are used in steam power plant.

(5)

**OR**

Explain briefly the process of nuclear fission.

(5)

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