

**Total number of printed pages: 01 Programme(UG)/ 8th Semester/UIE812
2024**

POWER PLANT INSTRUMENTATION

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.	a)	Draw a load curve and explain load factor.	06
	b)	What is capacity factor? What is demand factor?	04
	c)	What are the points to be consider to select location of power plants?	06
	d)	What do you mean by super heated steam in thermal power plants?	04
2.	a)	Write down the working of bulk modulus pressure gauge for high pressure measurement.	06
	b)	Explain working principle of Electrostatic precipitator.	04
	c)	Describe a Hydro electric power plant with the help of diagram.	06
	d)	How solar thermal conversion work in cylindrical parabolic concentrator?	04
3.	a)	Give a brief description of Sodium Graphite Reactor.	06
	b)	What is the use of moderator and control rods?	04
	c)	Explain Carnot cycle with a suitable diagram.	10
5.	a)	Write a note on fixed cost and depreciation for power plant.	10
	b)	What is power plant economics? Explain with equation.	10
6.	a)	Write short note on Indian energy scenario.	10
	b)	Draw complete diagram of Thermal power plant. Explain each components.	10
7.	a)	Write short note on Photovoltaic cell. What is satellite solar power station concept?	10
	b)	Dwar the different types of windmill rotors.	10

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