

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 39516

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Electronics and Instrumentation Engineering

01UEI916 - INSTRUMENTATION FOR POWER PLANTS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Mention the renewable and non-renewable source of energy.
2. Sketch the P & I diagram of boiler.
3. List the parameters involved in measuring electrical measurements in power plants.
4. What is the use of dust monitor?
5. List the selection criteria for carrier gas in chromatography.
6. Define pH.
7. What is furnace draft?
8. What are the various methods used for steam temperature control?
9. What are the requirements for vibration monitoring instruments?
10. Differentiate impulse and reaction turbines.

PART - B (5 x 16 = 80 Marks)

11. (a) Draw the schematic layout of modern thermal power plant and explain in detail. (16)

Or

(b) Explain the classification of nuclear reactors and describe briefly about the PWR. (16)

12. (a) Explain how is a radiation detector useful for measurement in power plant? Describe the types of radiation detector with neat sketch. (16)

Or

(b) Discuss about the boiler feed water circulation with neat diagrams. (16)

13. (a) With neat sketch, explain the construction and working of High Pressure Liquid Chromatography (HPLC) with advantages and disadvantages. (16)

Or

(b) What is pH value? How is it controlled in water? Discuss in detail with neat sketch. (16)

14. (a) Elucidate concept of the furnace draft control in boiler circuit with neat sketch. (16)

Or

(b) Explain the combustion control in air-fuel circuits, with neat diagrams. (16)

15. (a) With neat diagram of elements in the steam turbine, explain each block in detail. (16)

Or

(b) Describe about the necessity of cooling the condenser water and discuss about the classification of cooling system. (16)
