

19U338

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Name:

Reg.No:

THIRD SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, NOVEMBER 2020

(CBCSS - UG)

CC19U BCS3 A12 / CC19U BCA3 A12 - SENSORS AND TRANSDUCERS

(Common Course)

(2019 Admission - Regular)

Time : 2.5 Hours

Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. List any two applications of sensor.
2. What is mean by passive transducers? Give an example.
3. Define Minimum Detectable Signal (MDS).
4. Define eddy current.
5. What is capacitive transducer?
6. What are the classifications of Thermal sensor?
7. Define PTC Thermistor.
8. List the advantages of Thermocouple.
9. What are the classifications of manometer.
10. Differentiate Continious level transducers and discrete level transducers.
11. Why Venturi meter preferred over Orifice plate.
12. What is Rotameter?
13. What is Avalanche Diode mode?
14. Define Photovoltaic effect.
15. What is sound level meter?

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

16. What is RVDT? Discuss the advantages and disadvantages of LVDT?
17. Explain how RTD it is used to measure temperature.
18. Explain the working of Thermostat.
19. Explain the working of gas filled radiation detectors.
20. What are the different types of electrical device used to make pressure transducers.
21. Distinguish between U-tube Manometer and inclined tube manometer
22. What is LDR? Discuss the different categories of LDR.
23. What is Hall effect transducer. Write the characteristic equation to find the hall effect voltage.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any *two* questions. Each question carries 10 marks.

24. Discuss the operation of potentiometer and how to make use of it as displacement sensor.
25. Explain the construction and working of strain gauge.
26. What is discrete level transducer? Explain the working of discrete level transducer.
27. Explain the construction and working of photoemissive cell with suitable diagram.

(2 × 10 = 20 Marks)
