

22U336

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Name:

Reg.No:

THIRD SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U BCS3 A12A / CC19U BCA3 A12A - SENSORS AND TRANSDUCERS

(Computer Science / Computer Application - Common Course)

(2019 Admission onwards)

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 four applications of transducer.
2. What is mean by analog transducer? Give an example.
3. List the static characteristics of transducer.
4. List the advantages of RVDT.
5. Write the characteristic equation of capacitive transducer.
6. List the classifications of Thermal sensor.
7. Define NTC Thermometer.
8. Define the term Seebach Effect.
9. What are the classifications of manometer?
10. List the different types of Level transducers.
11. Define Bernoulli's theorem.
12. List any four applications of photoemissive cell.
13. What is mean by photovoltaic effect?
14. Briefly describe the characteristics of microphone.
15. What is meant by hall effect transducer?

(Ceiling: 25 Marks)

Part B (Paragraph questions)

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

16. Explain the working principle of Inductive transducer.

17. Explain how RTD it is used to measure temperature.
18. Explain how does a thermostat works?
19. Explain the working of gas filled radiation detectors.
20. Explain different types of electrical devices that can be used to make pressure transducers.
21. Distinguish between well type manometer and inclined tube manometer.
22. Briefly discuss the working of anemometer.
23. Briefly discuss the working of LDR.

(Ceiling: 35 Marks)

Part C (Essay questions)

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

24. Define Resistive Transducer. Explain any two applications of Resistive transducer with suitable diagram.
25. Explain the construction and working of strain gauge.
26. What is discrete level transducer? Explain the working of discrete level transducer.
27. Discuss the construction and working of Photodiode.

(2 × 10 = 20 Marks)
