

D4BCS2202

Reg.No:.....

Name:

**FOURTH SEMESTER UG DEGREE EXAMINATION, APRIL 2024
(Regular/Improvement/Supplementary)**

BCA

GBCS4A04T: SENSORS AND TRANSDUCERS

Time: 2 ½ Hours

MaximumMarks: 80

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 25 Marks)

1. Expand LDR.
2. What is a flow meter?
3. Mention the different types of microphones.
4. Define transduction.
5. What is nozzle plate?
6. State the function of a secondary transducer.
7. What is a rotameter?
8. Define pressure.
9. What is loading effect?
10. Define potentiometer.
11. What is an active transducer?
12. Can a transducer be called a sensor? Substantiate.
13. What are the temperature sensors?
14. Mention the application of a capacitance sensor.
15. What is a manometric fluid?

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 35 Marks)

16. Compare thermocouple with RTD.
17. Explain Hall Effect transducers.
18. What are the requirements of a sensor?
19. Explain the operation of LVDT.
20. With a neat diagram explain the function of pressure sensors.
21. Enlist advantages and disadvantages of thermocouple.
22. Discuss Bernoulli's principle and continuity equation.
23. In what different mode P_ N junction used for radiation detection?

SECTION C: Answer any *two* questions. Each carries *ten* marks.

24. Explain any two flow transducers.
25. What is a transducer? Explain it's characteristics.
26. Write essay about Thermistors.
27. Explain u-tube manometer and well type manometer.

(2 × 10 = 20 Marks)