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21BSCOEEL

B.Sc. III Semester Degree Examination, March/April - 2023

ELECTRONICS (OPEN ELECTIVE)

Energy Devices and Sensors

(NEP)

Time : 2 Hours Maximum Marks : 60

Note : *Answer* ***all*** *sections.*

SECTION - A

1. Answer the following sub-question. **10x1=10**

(a) Define Transducer.

(b) Expand LVDT.

(c) What is Encoder ?

(d) Mention few optical sensor devices.

(e) What is strain gauge ?

(f) What are magnetic sensors ?

(g) What are data convertors ?

(h) What is data lossing in industry ?

(i) Expand DMM.

(j) What is function generator ?

P.T.O.

SECTION - B

Answer **any four** questions. **4x5=20**

2. Explain the working of resistance type transducer.

3. Explain the Ultrasonic range transducer.

4. Explain with the neat diagram magnetic sensors.

5. Explain Sample and Hold Circuits in Data acquisition system.

6. Explain the working of DVM with block diagram.

7. Explain multi - channel data acquisition system.

SECTION - C

Answer **any three** questions. **3x10=30**

8. Explain the working and principle of LVDT.

9. Explain RF becon sensor and mention its importance in industries.

10. What is the principle of strain gauge and working of strain gauge.

11. Write notes on :
(i) Home Appliances
(ii) Single channel data system

12. Explain Analog multimeter with front Panel diagram.

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