1384

Code : 15EC34T

Register Number | | | | | | | | | | |

III Semester Diploma Examination, Oct./Nov.-2019

ELECTRONICS MEASUREMENTS & INSTRUMENTATION

Time : 3 Hours] **[Max. Marks : 100**

Note : (i) Answer any **six** questions from PART – A.

(ii) Answer any **seven** questions from PART – B.

PART – A

1. Write a note on IEEE standards. **5**

2. Explain the working of proximity sensors. **5**

3. Explain with block diagram peak responding type voltmeter. **5**

4. Differentiate between PMMC and Electrodynamometer. **5**

5. What is the importance of CRO probes ? List the types. **5**

6. How do you measure AC/DC voltages by using CRO ? **5**

7. Explain the mechanism of automatic polarity indication. **5**

8. Explain the basic structure of IEEE-488 GPIB instruments. **5**

9. Define Grounding. Write the need for grounding. **5**

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PART – B

10. Explain how Wheatstone bridge is used for measurement of resistance. 10

11. (a) Define errors. Write the sources of errors. 5
    (b) Explain the principle of strain gauge. 5

12. (a) Write the working principle of PIR sensors. 5
    (b) Write the characteristics of transducer. 5

13. (a) Explain with neat sketch the multirange ammeter. 5
    (b) Explain how calibration of DC voltmeter is done. 5

14. With neat diagram, explain the construction and working of electrodynamometer as wattmeter. 10

15. (a) Write the diagram of CRO and name its parts. 5
    (b) Write the application of Digital Storage Oscilloscope. 5

16. With block diagram, explain sweep frequency generator and write its application. 10

17. Discuss with block diagram the successive approximation method used to measure voltage in digital method. 10

18. (a) Write a brief note on Microprocessor based instrument. 5
    (b) Write the advantages of Digital Multimeter. 5

19. (a) Write the precautions to be taken in instrument usage. 5
    (b) Write a note on shielding. 5