Roll No.   **Total No. of Pages : 02**

Total No. of Questions : 18

B.Tech. (ECE/Electronics Engg/Electronics & Computer Engg) (2012 to 2017) (Sem.–4)

ELECTRONIC MEASUREMENT & INSTRUMENTATION
Subject Code : BTEC-404
M.Code : 57596

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Answer briefy :

Q1. What do you mean by primary, secondary and tertiary measurements?

Q2. Define Accuracy and Precision.

Q3. What is reproducibility and dead zone?

Q4. What are static errors?

Q5. What is the working principle of C type bourdon tube?

Q6. What is the necessity of recorders?

Q7. Explain working of Hey's bridge.

Q8. Differentiate between sensor and transducer.

Q9. Elaborate data acquisition system.

Q10. How sine wave and square waves are generated with AF generator?

SECTION-B

Q11. With a neat diagram explain in detail the construction of PMMC instrument.

Q12. Explain the fourteen segment display Nixie tube in detail and list its various applications.

Q13. Explain transducer and describe different modes of operations of thermocouple transducer and its uses.

Q14. Explain position telemetering system with neat and clean diagram.

Q15. Sketch and explain the working of moving-coil instrument

SECTION-C

Q16. a) How is the voltmeter calibrated with DC potentiometer?

b) What is the use of LVDT? Discuss its basic principle of operation.

Q17. Draw the block diagram of an electronic voltmeter and explain its operation.

Q18. Write short notes on :

a) Maxwell Wien bridge

b) Digital frequency meter

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.