Reg. No. : | | | | | | | | | | |

Question Paper Code: 35403

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Fifth Semester

Electronics and Communication Engineering

01UEC503 – ELECTRONIC MEASUREMENTS AND INSTRUMENTATION

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Compare moving coil and moving iron meters.
2. List the sources of error.
3. Why delay line is used in CRO?
4. What is the difference between analog and digital storage oscilloscope?
5. Draw the block diagram of RF signal generator.
6. Write a short note on sweep generators.
7. What are the functions of multimeter?
8. What is meant by automatic zeroing?
9. What is the importance of sample and hold circuit in digital data acquisition system?
10. How do you measure the power loss in a fiber optic measurement?

PART - B (5 x 16 = 80 Marks)

11. (a) Suggest suitable bridges to measure the following parameters and explain (i) unknown capacitance (ii) unknown inductance. (16)

Or

(b) Which measurements can be carried out by Maxwell bridge? Derive the balance equation and expressions for the unknown components. (16)

12. (a) Explain the various methods of RF power measurement. (16)

Or

(b) How RF power and voltage are measured? Explain in detail. (16)

13. (a) Explain in detail about sweep generators. (16)

Or

(b) Give a detailed account of spectrum analyzers. (16)

14. (a) Explain any two types of digital voltmeter. (16)

Or

(b) Explain the working principle of any two types of digital voltmeter. (16)

15. (a) Draw the block diagram of digital data acquisition system and explain functions of each block. (16)

Or

(b) (i) Discuss briefly about IEEE 488 bus. (8)

(ii) Explain the operation of optical time domain reflectometer. (8)

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