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Question Paper Code: 35043

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

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. List the sources of error.
2. Differentiate Accuracy and Precision.
3. Why delay line is used in CRO?
4. List the applications Q meter.
5. Differentiate Function generators from Signal generators.
6. Write a short note on sweep generators.
7. What are the functions of multimeter?
8. What is meant by automatic zeroing?
9. Point out the analog elements used in digital data acquisition system.
10. What are the instruments used in computer controlled instrumentation?

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss the types of error in measurement and instrumentation system. (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) Draw and explain the block diagram of digital storage oscilloscope and the modes of operation of digital storage oscilloscope. (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) Construct a meter that measures RLC. (16)
14. (a) Explain any two types of digital voltmeter. (16)
- Or
- (b) Explain how audio amplifier and radio receiver are to be tested by means of computer controlled system. (16)
15. (a) Draw the block diagram of digital data acquisition system and explain functions of each block. (16)
- Or
- (b) What is the use of optical time domain reflectometer? Explain the working of optical time domain reflectometer. (16)
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