Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

EX-604 (GS)

B.E. VI Semester

Examination, May 2018

Grading System (GS)

Electronic Instrumentation

Time : Three Hours

Maximum Marks : 70

Note: i) Answer any five questions.

ii) All questions carry equal marks.

1. a) Explain dual trace and dual beam method for multiple trace oscilloscope. Which method is better and why? 7

   b) How does the digital storage oscilloscope differ from the conventional storage oscilloscope using a storage cathode ray tube? What are the advantages of each? 7

2. a) How measurement of power is done at radio frequencies? Discuss. 7

   b) Describe the function and working of Wagner's earth devices. 7

3. a) What are different kind of inductive transducer? Describe the working of LVDT. 7

   b) Explain the theory of strain gauge and derive expression for gauge factor. 7

4. a) Describe a harmonic distortion analyzer with the help of block diagram. 7

   b) What do you understand by function generator? Draw its block diagram and explain its working. 7

5. a) Draw the block diagram of Ramp type digital voltmeter and explain its working. rgpvonline.com 7

   b) Explain the principle of direct gating used for digital frequency meter. Draw the block diagram of such a meter and explain the working. 7

6. a) Draw the block diagram of successive approximation type digital voltmeter and explain its working. 7

   b) Explain the principle of working of a magnetic tape recorder. What are its basic components? 7

7. a) Explain the IEEE 488 instrumentation bus with the help of its schematic representation. 7

   b) How can fiber optical power be measured? Also discuss with the help of block diagram. 7

8. Write short notes on the following (any two): 7 each

   a) Bolometer

   b) Andersons Bridge

   c) Scattering parameters

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