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Roll No

EE/EX-3002-CBGS

B.E. III Semester

Examination, December 2020

Choice Based Grading System (CBGS) Electrical Measurements and Instrumentation

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

iii) Sketch neat diagram.

1. a) Write about Testing and Calibration of instruments. 7
b) What are the various techniques for dynamic compensation in measurement systems. 7
2. a) Explain in detail about Electrodynamometer with the help of suitable diagram. 7
b) What are the various operating forces and damping techniques used in analog instruments? 7
3. a) What are potential and current transformers? Also discuss the difference between them. 7
b) Explain working and construction double element dynamometer Wattmeter. 7
4. a) Explain about Resonance type frequency meter. 7
b) Explain construction and operation of three phase electronic energy meter. 7
5. a) Explain in detail about series and shunt type Ohmmeter. 7
b) Explain loss of charge method for resistance measurement. 7

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6. a) Explain working and construction of D'arsonval galvanometer. 7
b) Discuss about accuracy of measurement in steady state. 7
7. a) Write about principle of operation and working of moving iron type instrument. 7
b) Explain about measurement of reactive power by single Wattmeter method. 7
8. Write short notes on the following: 14
a) PMMC
b) B-H curve and Hysteresis Loop determination
c) Digital voltmeter
