

Roll No.

24027

**B. Tech 3rd Semester (EE)
Examination – December, 2017**

**ELECTRICAL MEASUREMENTS & MEASURING
INSTRUMENTS**

Paper : EE-209-F

Time : Three Hours]

[Maximum Marks : 100

*Before answering the questions, candidates should ensure that
they have been supplied the correct and complete question paper.
No complaint in this regard, will be entertained after examination.*

*Note : Attempt five questions in all. Question No. 1 is
compulsory. Attempt any one question from each
Section. All questions carry equal marks.*

1. (a) Define true value with suitable example.

$$4 \times 5 = 20$$

(b) What are the absolute and secondary
instruments ?

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(c) What are the disadvantage of power factor meter ?

(d) Why we need bridges ? Explain it briefly.

SECTION – A

2. (a) Explain the comparison between gravity and spring control. <http://haryanapapers.com> 10

(b) What are the three forces in electromechanical indicating instruments ? Explain them. 10

3. Write short note on : 20

(a) Precision

(b) Resolution

(c) Sensitivity

SECTION – B

4. Explain the construction, working principle and torque equation of voltmeter. 20

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5. Explain the electrostatic type instruments. 20

SECTION – C

6. Write short note on : 20

(a) Torque equation of Wattmeter.

(b) Compensation and creep in energy meter.

7. Explain the frequency meter in details. 20

SECTION – D

8. (a) Explain the loss charge method. 10

(b) What are the limitations of Wheatstone bridge ? 10

9. Explain the circuit diagram and Phasor diagram of Maxwell's inductance capacitance bridge. 20

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