

Sep-21-00063

B. Tech. EXAMINATION, 2021

Semester IV (CBCS)

ELECTRICAL MEASUREMENTS AND
MEASURING INSTRUMENTS

EE-402

Time : 2 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D.
Q. No. 9 is compulsory.

Section A

1. (a) Explain three electromechanical forces in indicating instruments. 7.5

- (b) Explain comparison of damping methods. 7.5
- 2. (a) Explain static characteristics of instruments. 7.5
- (b) Explain gauge factor. 7.5

Section B

- 3. (a) Explain moving iron type instruments. 7.5
- (b) Explain the hot wire type instrument. 7.5
- 4. (a) Explain electrodynamic and induction type wattmeter. 7.5
- (b) What do you mean by compensation and creep in energy meter ? 7.5

Section C

- 5. What are the advantages and disadvantages of single-phase power factor meter ? 15
- 6. Explain frequency meter. 15

Section D

- 7. What are the applications of Maxwell's inductance bridge ? 15

- 8. Explain Anderson and Own's bridge. 15

(Compulsory Question)

- 9. (a) What do you know about shielding and earthing in brief ? 4
- (b) Explain principle of thermocouple transducer. 4
- (c) Limitation of Wheatstone bridge. 4
- (d) Explain various errors in instruments. 3