

EI - 405**B.E. IV Semester Examination, June 2015****Mechanical Measurements***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

Unit - I

1. a) What is vibration?
b) What is rotational displacement?
c) Explain Gyroscope.
d) Explain working of strain gauges and five applications.

OR

Explain digital displacement transducers

Unit - II

2. a) What is torque?
b) What is shaft power?
c) What is gyroscopic force transducer.
d) Explain shaft power measurement (Dynamometers).

OR

Explain torque measurement in rotating shaft.

Unit - III

3. a) What is pressure?
b) What is sound?
c) What is piezoelectric transducers?
d) Explain Ionization gauge.

OR

Explain viscosity gauge for low pressure measurement.

Unit - IV

4. a) What is flow?
b) What is orifice meter?
c) What is Pitot tube?
d) Explain Anemometer.

OR

Explain ultrasonic flow meter.

Unit - V

5. a) What is temperature?
b) What are Bimetallic thermometers?
c) What are pressure thermometers?
d) Explain working of thermistors.

OR

Explain humidity measurement.