



Reg. No. :

Name :

**Sixth Semester B.Tech. Degree Examination, June 2015
(2008 Scheme)**

08.666 : ELECTRONIC INSTRUMENTATION (T)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

(10×4 = 40 Marks)

1. What is the principle of operation of LVDT ?
2. Define sensitivity and resolution of an instrument.
3. What are the characteristics of resistance transducers ?
4. Explain piezoelectric type acceleration pickups.
5. How will you measure torque using strain gauges ?
6. Explain Q meter.
7. List a few applications of analog storage oscilloscope.
8. What is the principle of operation of TEM instruments ?
9. Discuss the various types of oscilloscope probes.
10. Briefly explain RF power meter.



PART – B

Answer **any two** questions from **each** Module.

(2×10 = 20 Marks)

Module – I

11. Explain synchros and resolvers in detail.
12. What are the various types of capacitive transducers ? Explain.
13. What is a transducer ? How is it classified ? With neat sketch explain the general input output configuration of a transducer.

**Module – II**

14. Briefly explain : **(2×10= 20 Marks)**
- a) Column type load cells
 - b) Electromagnetic tachometers.
15. Explain any two techniques for sensing vibrations in detail.
16. Explain the various types of strain gauges.

Module – III**(2×10= 20 Marks)**

17. Draw the schematic of Maxwell's bridge and deduce the expressions for unknown elements under balance conditions.
18. Write notes on :
- a) SEM instruments
 - b) Electronic multimeter.
19. Explain how time-base waveform is generated in an oscilloscope.