

22222

**M.Tech. 1st Semester (ME)**  
**Examination, December-2018**  
**MACHINE DESIGN**  
**Paper- M-803-A**

**Instrumentation and Measurement**

*Time allowed : 3 hours] [Maximum marks : 100*

*Note: Attempt any five questions. All questions carry equal marks.*

1. (a) Describe Error and response characteristics of sensors. 10
- (b) Discuss about types of signals. 10
2. (a) Explain impedance matching technique. 10
- (b) Explain the concept of normal distribution. 10
3. (a) What is potentiometer? Explain. 10
- (b) Write in detail about Accelerometer. 10
4. Write in brief about
- (a) Torque measurement using shaft deflection method. 10
- (b) Transmission dynamometer. 10
5. (a) Explain Resistance thermometer. 10
- (b) Explain Quartz thermometer. 10
6. (a) Explain Piezometer. 10
- (b) Explain bellow - type pressure transducer. 10
7. (a) Explain Turbine flow meter. 10

22222-P-2-Q-8 (18)

[P.T.O.

22222

(2)

22222

- (b) Explain Laser Doppler flow meter. 10
8. Write short note on:
- (a) Air Conditioning plant control. 10
- (b) Hot wire anemometer. 10

<http://www.HaryanaPapers.com>

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से