Odd Semester Examination 2018-19

B.TECH (EEE/EN) (SEMESTER-V)

APPLIED AND ELECTRONIC INSTRUMENTATION

Time: 03:00 Hours **Max Marks : 100**

Note : Attempt the following.

1. Attempt any **four**: (4×5=20)

   (a) Discuss the function of sensor.

   (b) Discuss the term Column.

   (c) What is noise, write down any four types of noise.

   (d) What is parametric transducer, write its two applications also.

   (e) Discuss the term energy meter.

   (f) What do you mean by frequency meter?

2. Attempt any **four**: (4×5=20)

   (a) What is temperature compensation, discuss in brief.

   (b) Write down about the transmission error in brief.

   (c) Write down the four examples of semiconductor materials.

   (d) Define the term velocity and acceleration in brief.

   (e) Discuss the term SNR in brief.

   (f) Write down the short note on digital telemetry schemes.

3. Attempt any **two**: (2×10=20)

(a) What do you mean by thermistors, discuss NTC and PTC thermistors in details?

(b) What do you understand by the terms, transducer, show the comparative study between active and passive transducers in detail.

(c) What is tachometers, discuss Electro-magnetic and photoelectric tachometers in details.

4. Attempt any **two**: (2×10=20)

(a) What do you mean by piezoelectric material, discuss digital voltmeter and multimeter in detail?

(b) Show the comparative study between thermocouple and thermopile in details.

(c) Define the term torque, also discuss electromagnetic and radio type torque meters in details.

5. Attempt any **two**: (2×10=20)

(a) Discuss the Wheatstone-bridge circuit in details, write down its two applications also.

(b) Define the term cell, also discuss ring and cantilever-beam type load cells in detail.

(c) Write down short notes on

(i) Actuator.

(ii) Radio telemetry.

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