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**Question Paper Code: 43603**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Instrumentation and Control Engineering

14UIC303-SENSORS AND TRANSDUCERS

(Common to Electronics and Instrumentation Engineering)

(Regulation 2014)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

- Strain gauge, LVDT and thermocouple are examples of
  - Active transducers
  - Passive transducers
  - Analog transducers
  - Primary transducers
- Two capacitances,  $C_1 = (150 \pm 2.4) \mu F$  and  $C_2 = (120 \pm 1.5) \mu F$ , are in parallel. What is the limiting error of the resultant capacitance  $C$ ?
  - $0.9 \mu F$
  - $1.9 \mu F$
  - $3.9 \mu F$
  - $4.8 \mu F$
- A strain gauge is a passive transducer and is employed for converting
  - pressure into a change of resistance
  - force into a displacement
  - pressure into displacement
  - mechanical displacement into a change of resistance
- The desirable static characteristic of a measuring system are
  - Accuracy and reproducibility
  - Accuracy, sensitivity and reproducibility
  - Drift and dead zone
  - Static error

