



C14-M-605

4755

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DME - VI SEMESTER EXAMINATION

MEASUREMENT & CONTROL SYSTEMS

Time : 3 Hours]

[Total Marks : 80

PART - A

3×10=30

Instructions :

- (1) Answer **ALL** questions.
- (2) Each question carries **THREE** marks.
- (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 Define primary, secondary and tertiary measurements.
- 2 Define the following : (a) Dead time and dead zone (b) linearity.
- 3 What are the different sources of measurement errors?
- 4 Define transducer with line diagram.
- 5 List out the different transducers used in measurement systems.
- 6 What are the different types of mechanical tachometers ?
- 7 Define thermistor and draw a symbol of thermistor.
- 8 Write the advantages of Bourdon's tube pressure gauge.
- 9 Draw a line diagram of feed back control system.
- 10 List the applications of pneumatic control system.

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[Contd...

PART - B**10×5=50**

- Instructions :**
- (1) Answer any **FIVE** questions.
 - (2) Each question carries **TEN** marks.
 - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11 Write the classification of measuring instruments and explain with suitable examples.
- 12 Explain types of errors with examples.
- 13 Explain piezo - electric transducer with suitable diagram and its advantages.
- 14 Explain LVDT. Write its advantages and disadvantages.
- 15 Explain thermocouple with suitable sketch and write its advantages and disadvantages.
- 16 Explain bonded metal wire strain gauge and its advantages and disadvantages.
- 17 List out the types of flow measurement devices and explain Rotameter.
- 18 Explain Servomechanism and state its applications.