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C14–M–**605**

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BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2018

DME - SIXTH SEMESTER EXAMINATION

MEASUREMENT AND 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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. What is the significance of measurement in engeering.

2. Define primary, seconndary and tertiary type measurements.

3. Write any three facrtors to be considered for selecting an instrument.

4. Define transducer with line diagram.

5. Write the application of Piezo-Electric transducer.

6. Define seed and angular speeds, write their units.

7. Define thermistor and draw a symbol of thermistor.

8. Classify pressure measurement devices.

9. Define control system, list out the elements of control system.

10. List out different components of hydraulic controller.

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PART–B

10×5=50

Instructions : (1) Answer *any* **five** questions.
(2) Each questions carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. what are the dynamic charectaristics of instrument and explain briefly.

12. Describe briefly the various types of errors occurring in measurements with examples.

13. What are the mechanical detector transducer elements and explain-with examples.

14. Explain piezo-electric transducer with suitable diagram, write its advantages and disadvantages.

15. Explain the revolution counter and timer, slipping clutch tachometer with line diagram.

16. Explain liquid-in-glass thermometer with a neat sketch and write application and advantages.

17. Explain bourdon's tube pressure gauge with neat sketch and write its applications.

18. Explain open loop control system with line diagram and write its advantages and disadvantages.

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