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**4761****BOARD DIPLOMA EXAMINATION, (C-14)****MARCH /APRIL-2019****DME - SIXTH SEMESTER EXAMINATION****MEASUREMENT AND CONTROL SYSTEMS**

Time: 3 Hours ]

[Max. Marks : 80

**PART-A****10x3=30M**

**Instructions:** 1) Answer **all** questions. Each question carries **three** marks.  
2) Answers should be brief and straight to the point and shall not exceed five simple sentences.

- 1) Define measurement with an example. 2+1
- 2) Distinguish between direct and indirect methods of measurement.
- 3) Define error, what are the causes for error. 1+2
- 4) What are the requirements of strain gauge.
- 5) Define passive and active transducers.
- 6) What are the different types of tachometers.
- 7) Define pyrometer and classify.
- 8) List out the types of thermometers.
- 9) Write any three differences between opes-loop and closed-loop systems.
- 10) List out applications off pneumatic control system.

## PART-B

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5x10=50M

- Instructions:** 1) Answer any **five** questions.  
2) Each question carries **ten** marks.  
3) The answer should be comprehensive and the criterion for valuation is the Content but not the length of the answer.
- 11) What are the static characteristics of instrument and explain briefly.
  - 12) Describe briefly the various types of errors occurring in measurements with examples.
  - 13) Explain capacitive transducer with suitable diagram, write its advantages and disadvantages.
  - 14) Explain bonded metal wire strain gauge, write its advantages and disadvantages.
  - 15) Explain the drag cup tachometer, tachogenerators with neat sketch.
  - 16) Explain bimetallic thermometer with neat sketch.
  - 17) Explain hotwire anemometer with constant temperature method.
  - 18) Explain servomechanism with line diagram and write its applications.

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