AB-3188
Third Year B. Sc. (Sem. V) Examination
March/April – 2015
Electronics : Paper - X
(Measurement Systems & Industrial Instrumentation)

Time : Hours] [Total Marks : 50

Instructions :

(1) Fill up strictly the details of signs on your answer book.
Name of the Examination : Third Year B. Sc. (Sem. V)
Name of the Subject : Electronics : Paper - X
Subject Code No. : 3 1 8 8

(2) Q. 1 is compulsory.
(3) Figures at extreme right indicate full marks.

1 Answer in brief : 8
   (a) What is loading effect?
   (b) What is steady state error?
   (c) State first order measurement systems
   (d) Name the output devices (data presentation element) in measurement systems.

2 (a) Explain the electromagnetic flow meter along with its merits and demerits. 7
   (b) Explain the ultrasonic flow measurement along with its merits and demerits.

OR
   (a) What is operation transfer function? What are its advantages? Find operational transfer function in case of zero order, first order and second order measurement systems. 8
   (b) Discuss, in detail, the electrical method to measure pressure. 6

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3 (a) Discuss the step and ramp response of first order measurement systems.

(b) Discuss the high gain feed-back for correcting the interfering inputs.

OR

3 (a) Define the second order measurement systems and discuss any two cases in detail.

(b) Discuss the method of signal filtering to remove the interfering inputs.

4 Write short notes: (any two)

(a) LVDT

(b) C-type Boardon tube

(c) Operational transfer function

(d) Frequency response of first order system.