

Total No. of Questions – [3]

Total No. of Printed Pages: 1

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paper code :- U239-155 (T1)

OCTOBER 2019 INSEM (T1)

S. Y. B.TECH. (Mechanical Engineering) (SEMESTER – III)

COURSE NAME: Instrumentation & Control

COURSE CODE: MEUA21185

(PATTERN 2018)

Time: [1 Hour]

[Max. Marks: 20]

(*) Instructions to candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Use of scientific calculator is allowed.
- 4) Assume suitable data where ever required.

Q 1) Attempt any **one**

- a) Explain Static characteristics of instruments used in industry. [8]
- b) What are the different types of proximity sensors? Explain any two in detail with neat diagram? [8]

Q 2) Attempt any **one**

- a) Explain 3-phase induction motor with help of neat sketch also Write down the advantages disadvantages? [8]
- b) Explain working of BLDC motor with neat sketch? List down the applications [8]

Q 3) Attempt any **one**.

- a) Define microprocessor? Draw the architecture of 8085 microprocessor [4]
- b) Write down the steps of DAQ in detail? [4]