

# MARKING SCHEME

## Marking Scheme

Printed Pages: 1

Total No. of Questions – [3]

Total No. of

G.R. No.	
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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]

### Marking Scheme

(\*) 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]  
Each characteristic 1 mark
- b) What are the different types of proximity sensors? Explain any two in detail with neat diagram? [8]  
2 marks for Sensor types and each 3 for each

Q 2) Attempt any **one**

- a) Explain 3-phase induction motor with help of neat sketch also [8]  
Write down the advantages disadvantages?  
Working of Induction motor and diagram 4 marks 2 for advantages and disadvantages
- b) Explain working of BLDC motor with neat sketch? [8]  
List down the applications  
3 marks for diagram 3 for working and 2 for application

Q 3) Attempt any **one**.

- a) Define microprocessor? Draw the architecture of 8085 microprocessor [4]  
1 for definition and 3 for architecture
- b) Write down the steps of DAQ in detail? [4]  
1 mark for each step