Total No. of Questions : 4]

SEAT No. :

PB65

[Total No. of Pages :1

[6268]- 260

S.E. (Robotics & Automation) (Insem)

METROLOGY & QUALITY ASSURANCE

(2019 Pattern) (Semester - IV) (211511)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4.***
2) ***Neat diagrams must be drawn whenever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***
5) ***Use of Logarithmic Table, Slide rule is Electronic pocket calculator is allowed.***

Q1) a) Write short note on Slip Gauges. **[9]**

b) Differentiate between Accuracy & Precision. **[6]**

OR

Q2) a) State the advantages & disadvantages of Optical comparator. **[6]**

b) Write short Note on Auto Collimator. **[9]**

Q3) a) Explain with neat sketch NPL interferometer. **[8]**

b) Sketch & interpret the meaning of various interference fringe patterns observe using optical flats. **[7]**

OR

Q4) a) Design a plug gauge for checking the hole 70 H8

Use $i = 0.45\sqrt[3]{D} + 0.001D$. IT8 = 25i, Diameter step 50 to 80 mm. **[10]**

b) Differentiate between hole basis system & shaft basis system. **[5]**