Total No. of Questions : 4]

SEAT No. :

PB202

[Total No. of Pages : 2

[6269]-421

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

ROBOT PROGRAMMING

(2019 Pattern) (Semester - II) (311508(A))

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

Instructions to the candidates:

1) ***Solve Q.1 or Q.2, Q.3 or Q.4.***
2) ***Figures to the right indicates full marks.***
3) ***Neat Diagram must be drawn wherever necessary.***
4) ***Assume Suitable data if necessary.***
5) ***Use of Logarithmic Table, Slide rule is Electronic packet calculator is allowed.***

Q1) a) Explain what are Flex-Pendant and how it helps to execute robot program? Explain with neat sketch. **[8]**

b) What are interlocking commands? Explain it with various interlocking commands used in robots. **[7]**

OR

Q2) a) Write a short note on "Jogging of Robot". **[7]**

b) What are various types of programming using in robots? **[8]**

Q3) a) What are Motion Commands? Enlist various motion commands used in VAL with its application. **[7]**

b) Differentiate between Motion Commands and Programming Instructions in context of VAL. **[8]**

OR

Q4) a) Explain the following code and the output when executed:

i) POINT A 300, 550, 250, 0, 0, 0

POINT B 0, 0, 150, 0, 0, 0

MOVE A : B

P.T.O.

ii) WAIT 20, ON

iii) SIGNAL 105, 4.5

iv) POINT P1

95, 20, 40, 0, 90, 0

HERE P1

[3+1+1+2=7]

b) Classify various types of robot programming languages? Explain any two types with its advantages and disadvantages. **[8]**

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