

Total No. of Questions : 4]

SEAT No. :

PA-10113

[Total No. of Pages : 2

[6009]-417

T.E. (Robotics & Automation) (In Sem)
ROBOT PROGRAMMING
(2019 Pattern) (Semester-II) (311508 (A))

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

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

Q1) a) Explain the lead through programming. [8]

b) Write a short note on 'Interlock Commands'. [7]

OR

Q2) a) Write a short note on 'Robot Coordinates'. [7]

b) Explain the process of Jogging. How is teach-pendant used in Jogging? [8]

Q3) a) Write a short note on 'Programming Instruction in VAL'. [7]

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

OR

Q4) a) Explain the following code and output when executed. [8]

i) POINT # P1
0,110,30,0,60,0
MOVE #P1
DEPART 50

P.T.O.

- ii) SPEED 200
MOVE P1
 - iii) ENABLE CP
MOVES P1
MOVES P2
MOVES P
DISABLE CP
- b) What is the Data type used in VAL? Explain the following. Commands used in VAL using examples of codes: [7]
- i) WAIT
 - ii) DELAY
 - iii) SIGNAL