
	ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE PUNE -41 INDIA	
Record No.: ZCOER-ACAD/R/16K	Revision: 00	Date: 01/04/2021

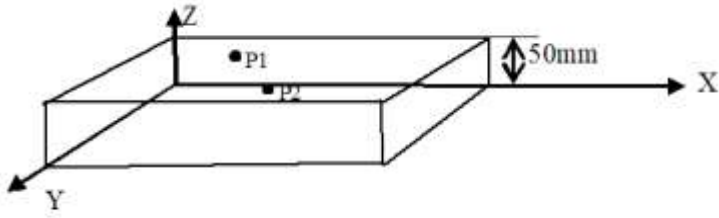
Unit Test –IV

Department: Robotics & Automation Semester: II Academic Year: 2023-2024
Class and Div.: TE A Date: 13/04/2024
Course: Robot Programming Maximum Marks: 30
Duration: 1 Hr

General Instructions (If any):

1. Qu.1 or Qu.2 , Qu.3 or Qu.4, Qu.5 or Qu.6 and Qu.7 or Qu.8
2. Neat diagrams must be drawn whenever necessary.
3. Figures to the right indicate full marks.
4. Use of calculator is allowed.
5. Assume suitable data whenever necessary.

Question No.		Question	Marks	CO	Blooms Level
Q1	A	Develop a program using RAPID robot programming language using RAPID procedure for pick and place operation from point P1(250,500,50) to P2(250, -500,50) such that it starts from <i>home</i> position and ends at <i>home</i> position. While executing the program the orientation of end effector remains same as (0,90,0) °. Show a neat sketch explaining the path of end effector while executing the above program.	08	CO 2	Apply
	B	Explain Move Motion Commands used in RAPID language. Explain using suitable examples.	07	CO 2	Understanding
OR					
Q2	A	Differentiate between TRAP Routine and PROC Routine in RAPID Language. Explain with example	07	CO 1	Understanding
	B	Explain the following instructions in RAPID with the help of examples of programs: <ol style="list-style-type: none"> AccSet SetDO MoveAbsJ ISignalDO WaitDO MoveL 	08	CO 1	Understanding
Q3	A	Develop a program using RAPID robot programming language using RAPID procedure for drilling operation from point P1(150,200,50) to P2(200,350,50) such that both the holes are of 10mm diameter and with depth of 50mm. While executing the program the orientation of end effector remains same as (0,90,0) °.	8	CO 1	Apply

					
OR					
Q4	A	Develop a program using RAPID robot programming language using RAPID procedure for pick and place operation from point P1(500,500,50) to P2(-500,500,50) such that it starts from <i>home</i> position and ends at <i>home</i> position. While executing the program the orientation of end effector remains same as (0,90,0) °.	08	CO 1	Apply
	B	Explain the following instructions in RAPID with the help of examples of programs: i. ClearPath ii. GripLoad iii. TriggL iv. StopMove v. CONNECT vi. IDelete	07	CO 1	Understanding

----- ALL THE BEST -----