

Register No.:

714

April 2024

Time – Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. What is the need for robots?
2. What is robot centred cell?
3. What are the power sources for welding?
4. Define TIG welding.
5. Write the applications of robot vision.
6. What is visual inspection?
7. List out the conventional material handling systems.
8. What is ASRS?
9. List out three factors influencing the choice of a robot.
10. Write the impact of robot on society.

[Turn over.....

PART – B

11. (a) Explain the structure and classification of industrial robots.
(Or)
(b) Explain the general considerations in robotic material handling.
12. (a) Explain about integration of robots for welding operations.
(Or)
(b) Explain the role of robots in spray painting and underwater applications.
13. (a) Explain the image acquisition and illumination techniques.
(Or)
(b) Explain about vision based part inspection.
14. (a) Explain about advanced material handling systems.
(Or)
(b) Explain about radio frequency identification technology.
15. (a) Explain the robot performance testing procedure.
(Or)
(b) Explain about return on investment of robot with an example.
