

898

Register No.:

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 low cost automation?
2. What are communication protocols?
3. What is brushless DC motor drive?
4. What is servo system?
5. What is degree of freedom?
6. What is object recognition?
7. What is reactive agent and learning agent?
8. What are the challenges of Industry 4.0?
9. What is laser sintering?
10. List out the benefits of AR.

[Turn over.....

PART – B

11. (a) Explain the production concepts and automation strategies.
(or)
(b) Explain the block diagram of PLC.
12. (a) Explain the principle and operation of synchronous motor drive.
(or)
(b) (i) Explain synchronising circuit. (7)
(ii) Write about trouble shooting of fluid power circuits.(7)
13. (a) Explain the various joints used in robotics.
(or)
(b) Explain the following:
(i) Machine Vision. (7)
(ii) Image data compression. (7)
14. (a) Explain the AI applications in industry automation.
(or)
(b) Explain the following:
(i) Smart devices. (7)
(ii) Cyber security. (7)
15. (a) Explain the principles of stereo lithography.
(or)
(b) (i) Explain the benefits of VR. (7)
(ii) Differentiate soft tooling and hard tooling. (7)
