

QP CODE: 25047511



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M Sc ELECTRONICS

ELECTIVE - EL810301 - ROBOTICS

2019 ADMISSION ONWARDS

DA1FFBFC

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What are the advantages of robot?
2. Explain the merits and demerits of cylindrical coordinates robot.
3. Write a short notes about robotics accuracy.
4. What is the need for sensors in robotics?
5. Explain accelerometers.
6. Differentiate Dc motor and stepper motor.
7. Explain about teach thorough method.
8. Compare teaching and programming methods.
9. What are the different metals used in die casting? Why the name die casting is given to this process?
10. Explain the process of robot selection.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Discuss about robot repeatability.
12. Explain the merits and demerits of robot coordinates.
13. Explain the working of force sensors.
14. Explain the working of a two stage pneumatic actuator.
15. Explain about high level programming languages.





16. What is the process robot talk?
17. What are the reference checklist to be examined before using robots in material handling?
18. What are the problems for robots in arc welding?

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain the terms: a) Spherical coordinates b) SCARA c) Cylindrical configuration
20. Explain briefly about position sensors with diagrams.
21. Explain in details about teach in programming.
22. Explain the relevance of robots in loading and unloading applications.

(2×5=10 weightage)

