

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SECOND SEMESTER M. TECH DEGREE EXAMINATION

Electronics & Communication Engineering

(Robotics and Automation)

04EC7921—AI for Robotics

Max. Marks : 60

Duration: 3 Hours

PART A

Answer All Questions

Each question carries 3 marks

1. What are the three robotic Paradigms?
2. What are the attributes of Reactive Paradigm?
3. What are Proprioceptive Sensors?
4. Why are Proximity sensors used?
5. What is Wavefront based Path planning?
6. Describe Bayesian method
7. Explain what the HIMM algorithm is.
8. What is considered Intelligence in Robotics?

PART B

Each question carries 6 marks

9. Discuss the Social implications of Robotics
OR
10. Describe the Hierarchical Paradigm
11. Explain the subsumption architecture?
OR
12. Explain how the Reactive Paradigm is implemented?
13. What is Topological Path Planning
OR
14. Explain C-Space representation.
15. What is Topological Path Planning
OR
16. Explain Range finding from binary vision.
17. What is the Dampster-Shafer Theory
OR
18. Discuss the HIMM Method
19. Discuss the Need for AI in Robotics
OR
20. Discuss on Robotic Perception.