K24P 2024

Reg. No. : .....

Name : .....

III Semester M.C.A. Degree (CBSS – Reg./Supple./Imp.) Examination, November 2024
(2021 Admission Onwards)
MCA3C04 : PRINCIPLES OF INTELLIGENT SYSTEMS

Time : 3 Hours Max. Marks : 60

PART – A

Answer **all** questions. **Each** question carries **two** marks. **(10×2=20)**

1. What is linear separability ?
2. Write a note on learning.
3. Explain about the Hebb rule.
4. What are adaptive resonance networks ?
5. Define a fuzzy logic.
6. What is meant by fuzziness ?
7. What are fuzzy rule based systems ?
8. Explain Defuzzification.
9. Write a note on the creation of offspring in G.A.
10. What is crossover ?

PART – B

Answer **all** questions. **Each** question carries **eight** marks.

11. a) Explain about perceptron networks. 8

OR

b) What is supervised learning ? Explain different forms of supervised learnings with examples. 8

P.T.O.

12. a) Explain about Associative Memory Networks. 8

OR

b) Explain the architecture of ART-1. 8

13. a) Using examples explain about classic relations. 8

OR

b) Differentiate crisp sets and fuzzy sets. 8

14. a) Explain about fuzzification. 8

OR

b) Given the following fuzzy sets A = {0.1/1, 0.3/2, 0.45/3}, B = {0.15/1, 0.34/2} find $A \cup B$, $A \cap B$, $A' \cup B'$, $A' \cap B'$. 8

15. a) Explain about various operators used in GA. 8

OR

b) Using a flow chart explain about genetic algorithm. 8

(5×8=40)