Reg. No. : | | | | | | | | | | | |

Question Paper Code: U5211

M.E. DEGREE EXAMINATION, NOV 2025

Professional Elective

Computer Science and Engineering

21PCS511– INTRODUCTION TO INTELLIGENT SYSTEMS

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Explain Artificial Neural Networks and its Applications   CO1-U   (20)

Or

   (b) Discuss in Recurrent Neural Network and its type   CO1-U   (20)

2. (a) Develop the framework of Fuzzy expert system with a diagram.   CO1-App   (20)

Or

   (b) Maximum the function $f(x)=x^2$ by using Genetic Algorithm in the range 0 to 31.   CO1-App   (20)

3. (a) Describe the Uninformed Search Algorithms.   CO1-U   (20)

Or

   (b) Explain in detail about Heuristic search methods.   CO1-U   (20)

4. (a) How can KR and LI be applied to develop intelligent agents that reason and make decisions in complex environments.   CO1-App   (20)

Or

   (b) Formulate a set of first-order logic statements to represent a domain-specific problem (e.g., a knowledge base about relationships in a social network).   CO1-App   (20)

5. (a) Design a Bayesian network to model dependencies among variables in a decision-making problem (e.g., medical diagnosis or risk assessment).   CO1-App   (20)

Or

   (b) (i) Derive Baye's theorem probability.(10)
   (ii) Illustrate with suitable example, Baye's theorem use in expert system.(10)   CO1-App   (20)

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