

Code No.: DS602PC

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CMR ENGINEERING COLLEGE : HYDERABAD
UGC AUTONOMOUS
III-B.TECH-II-Semester End Examinations (Supply) - January- 2024
ARTIFICIAL INTELLIGENCE
(CSD)

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A

(20 Marks)

1. a) What are the foundations of AI? [2M]
- b) Analyze the use of search methods. [2M]
- c) Determine distributive and commutative laws. [2M]
- d) Write about Iterative computation. [2M]
- e) List out the Characteristics of expert systems. [2M]
- f) Define uncertainty and factors caused for uncertainty. [2M]
- g) Identify the components of a learning system. [2M]
- h) Explain types of inductive bias. [2M]
- i) Define Augmentation. [2M]
- j) Infer the importance of the Natural Language Processing? [2M]

PART-B

(50 Marks)

2. Explain the following uninformed search strategies with examples. [5M]
 - a) Breadth First Search. [5M]
 - b) Depth First Search.
- OR**
3. Explain A* algorithm with suitable example. [10M]
4. Differentiate and explain propositional & predicate logic in detail with examples. [10M]
- OR**
5. List out of the rules of Axiomatic system with examples. [10M]
6. Illustrate Expert System Architecture with a neat diagram. [10M]
- OR**
7. What is Probability Theory? Explain briefly. [10M]
8. What is Multi-Layer Feed Forward Network? Explain with a neat diagram. [10M]
- OR**
9. Differentiate Supervised and unsupervised learning. Briefly write a short note on different algorithms present in them. [10M]
- 10.a) Give a brief note on Semantic Analysis. [5M]
 - b) Explain the Universal Networking Knowledge. [5M]
- OR**
11. List and explain the applications and various steps involved in Natural Language Processing. [10M]
