

M.Sc. - II (Computer Science) (NEP Pattern) Semester-III
03MSCCS02 - Paper-II : Artificial Intelligence and Robotics

P. Pages : 2

Time : Three Hours



GUG/S/25/15968

Max. Marks : 80

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- Notes :
1. All questions are compulsory & carry equal marks.
 2. Draw neat & Labelled diagram wherever necessary.
 3. Avoid vague answers & write Answer relevant & specific to questions only.

Either:

1. a) What is Turbo prolog? Explain About AI Technique in Detail. 8
- b) What do you understand by problem & problem spaces? Explain About problem characteristics. 8

OR

- c) Explain structure of languages? Write short About. 8
 - i) Cut structure.
 - ii) List & Complex structure.
- d) Define production system? Explain About Control strategies? 8

Either:

2. a) Write brief note on state space search? Explain. 8
 - i) Depth first.
 - ii) Breadth-first search.
- b) Define problem Reduction? Explain in short on: 8
 - i) Constraint satisfaction end
 - ii) Means-end Analysis.

OR

- c) Explain in brief about basic problem-solving methods? 8
- d) Explain: 8
 - i) Heuristic search.
 - ii) Hill climbing.

Either:

3. a) What do you mean by finding the Right structure? Explain About Declarative Representation. 8
- b) Explain the implementation of AI system. 8

OR

- c) What are some common Language structure? Explain Choosing level of Representation? **8**
- d) Explain following: **8**
 - i) Understanding Language Generation.
 - ii) Matching Translation.

Either:

- 4. a) Explain Basic concept of Robot. Describe its needs. **8**
- b) Explain About Industrial Application of robots? Describe future Applications. **8**

OR

- c) Explain end effect of classification in detail. **8**
- d) Define Robot configurations Cartesian explain Micro & Nano Robots. **8**

5. Attempt all questions.

- a) Explain In-short About AI pattern Recognition? **4**
- b) Describe production system in short? **4**
- c) Write down the concept of Natural Language. **4**
- d) Write in short About precision & Accuracy of Robot. **4**
