



RAN - 2111040102010002

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MCA (Sem. - II) Examination April - 2025

Artificial Intelligence (Paper : 201)

Time: 3 Hours]

[Total Marks: 70

સૂચના : / Instructions

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નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **MCA (Sem. - II)**

Name of the Subject :

☛ **Artificial Intelligence (Paper : 201)**

Subject Code No.: **2111040102010002**

Seat No.:

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Student's Signature

- Q.1**
- A.** Define IA and write a note on History of artificial intelligence. **6**
- B.** Write a note on application of artificial intelligence. **5**
- OR**
- Explain knowledge-based systems.
- C.** What is inference rules? **3**
- Q.2**
- A.** Explain A* algorithm in detail. **6**
- OR**
- Explain Constraint satisfaction with an example.
- B.** What is uninformed search? Explain BFS in detail. **5**
- C.** What do you understand by conceptual dependencies? Explain with example? **3**

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- Q.3** A. What is uncertainty? Explain joint probability and conditional probability. 7
OR
Discuss Probability rules.
- B. Discuss heuristics in A.I. 5
C. Explain Baye's rule. 2
- Q.4** A. Write a note on the different types of learning models. 7
OR
What do you mean by knowledge acquisition? Explain in detail.
- B. Discuss performance of learning model. 5
C. What do you understand by knowledge gathering? 2
- Q.5** A. What is an expert system? Explain the characteristics of expert system. 7
OR
What is an expert system? Explain its architecture.
- B. Write a note on applications of natural language processing. 5
C. What is computer vision. Give an example. 2
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