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Total No. of Pages : 02

Total No. of Questions : 07

BSC(AI & ML) (Sem.-3)
ARTIFICIAL INTELLIGENCE
Subject Code : UGCA-1973
M.Code : 90349
Date of Examination :12-12-2022

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) What is state space search?
- b) Express “A car without wheels is not useful” in predicate calculus.
- c) What is an expert system?
- d) What is a situation calculus?
- e) What is an inference engine?
- f) What is probabilistic reasoning?
- g) What is a control strategy?
- h) What is a monotonic Production System?
- i) What is declarative knowledge?
- j) What is reasoning?

SECTION-B

2. How AI handles reasoning under uncertainty. Explain with example.
3. Explain the following with example
 - a) Forward reasoning
 - b) Non Monotonic Reasoning
4. Consider the following sentences

John likes all kind of food

Apples are food

Chicken is food

Anything anyone eats and is not killed by is a food

Bill eats peanuts and is still alive

Sue eats everything Bill eats
 - a) Prove that John likes peanuts using resolution
 - b) Use resolution to answer the question “*What food does Sue eat*”.
5. What is meant by a “Knowledge-based system”? Describe the basic components of a knowledge-based system. Also mention the various levels of knowledge representation.
6. Differentiate between Data, Belief, Hypothesis & Knowledge. What is tautology? Give an example.
7. Discuss the following
 - (a) AI programming vs Conventional programming.
 - (b) Hill climbing.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.