

Seat No. : _____

N25-124

December-2014

4th Year M.Sc. (CA & IT) (Integrated)

Artificial Intelligence

Time : 3 Hours]

[Max. Marks : 100

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|----|-------|---|-----------|
| 1. | (a) | Explain different properties of knowledge. | 5 |
| | (b) | What is Turing test ? Describe. | 5 |
| | (c) | Explain seven problem characteristics with examples. | 10 |
| 2. | (a) | Write an algorithm for simulated annealing. | 6 |
| | (b) | Write an algorithm for agenda driven search | 6 |
| | (c) | Explain AO* with example. | 8 |
| 3. | (a) | Which are the different properties, which a good system for the representation of knowledge should possess ? Explain. | 4 |
| | (b) | Explain forward V/S backward reasoning. | 6 |
| | (c) | Explain architecture of an expert system. | 10 |
| 4. | (a) | Translate the following formulas in predicate logic. | 12 |
| | (i) | If it is pleasant tomorrow, Meenaxi will go for a drive, | |
| | (ii) | Minimow is a cat. | |
| | (iii) | Many students are sincere. | |
| | (iv) | All sports persons are strong. | |
| | (v) | Rina behaves well with good people. | |
| | (vi) | Sunita likes all kinds of games. | |
| | (b) | Explain propositional logic v/s predicate logic. | 4 |
| | (c) | How to represent instance and isa relationships ? Explain with example. | 4 |
| 5. | (a) | Construct semantic net representation for the following : | 4 |
| | (i) | Jessi is a pampered pet dog. | |
| | (ii) | Shreeni gave a beautifully packed gel pen set to her little sister. | |
| | (b) | Construct partitioned semantic net representation for the following : | 4 |
| | (i) | Every person has a vehicle. | |
| | (ii) | Every one like the book on spirituality. | |
| | (c) | Explain a frame structure giving example. | 5 |
| | (d) | Explain minimax search procedure with example. | 7 |