

Third Year B.C.A (Semester - II) Examination
Paper - 15BCA312

Elective :-
Artificial Intelligence

Time : Three hours]

[Full Marks - 60

- N.B. :**
- i) All questions carry equal marks
 - ii) Due credit will be given to neatness & adequate dimensions.
 - iii) Assume suitable data wherever necessary.
 - iv) Illustrate your answer necessary with the help of neat sketches.
 - v) Use Blue/Black ink/refill only for writing the answer book.

- Q.1 Choose correct alternative. 5
- a) The function name ____ is used to define function in LISP.
 - i) cond
 - ii) defun
 - iii) Both (i) & (ii)
 - iv) Member
 - b) ____ knowledge is passive knowledge in the form of statements of facts about the world.
 - i) Procedural
 - ii) Declarative
 - iii) Heuristic
 - iv) None of these
 - c) ____ is a number or string of contiguous or close characters including numbers & special characters
 - i) Atom
 - ii) List
 - iii) String
 - iv) None of these
 - d) Default Reasoning is another form of ____
 - i) Monotonic Reasoning
 - ii) Non-monotonic reasoning
 - iii) Predicate completion
 - iv) Circumscription

- e) ____ is a method of reasoning that resembles human reasoning.
- i) Predicate logic ii) Fuzzy logic
- ii) Propositional logic iv) None of these

- Q.2 a) What is AI? Explain Importance of Artificial Intelligence. 5
- b) Explain the knowledge concept with types of knowledge. 6

OR

- Q.3 a) Explain the knowledge concept with its importance. 6
- b) Explain the AI related field. 5

- Q.4 a) Explain list processing with syntax and numeric function. 5
- b) Explain syntax and semantics for propositional logic. 6

OR

- Q.5 a) Explain the list manipulation function in LISP. 6
- b) Explain the predicate function with example. 5

- Q.6 a) Explain the reason maintenance system in brief. 5
- b) Explain this concept of object oriented representation in brief. 6

OR

- Q.7 a) Explain this concept of fuzzy logic in brief. 5
- b) Explain message in object oriented system with types of messages. 6

- Q.8 a) Explain the concept of Blind search with example. 6
- b) Explain the measures used for matching. 5

OR

- Q.9 a) Explain the Best-First search with example. 5
- b) Explain the Indexing and Retrieval techniques in knowledge organization and management. 6

- Q.10 a) Explain the concept of Top-down and Bottom up parsing. 6
- b) Explain the levels of knowledge used in language understanding. 5

OR

- Q.11 a) Explain the concepts of Linguistics in brief. 5
- b) Explain the structural representation of grammar and languages. 6
