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 skectches.
v)   Use Blue/Black ink/refill only for writing the answer book.

Q.1   Choose correct alternative.   5
a)   _____ is closely related to the meaning of Intelligence.
i)   Artificial Intelligence
ii)   Knowledge
iii)   Knowledge based system
iv)   All of the above
b)   _____ is a number or string of contiguous or close characters, including number and special characters.
i)   Atom   ii)   List
iii)   String   iv)   None of these
c)   _____ is another form of non-monotonic reasoning
i)   Truth maintenance system
ii)   Default reasoning
iii)   Closed world assumption
iv)   All of the above

d) _____ of algorithms is defined in terms of their best, their average or their worst-case performance in completing some task.
   i) Time and space complexity
   ii) Graph and Tree
   iii) Directed search
   iv) None of these

e) _____ is knowledge which relates sound to the words for recognize.
   i) Phonolgical   ii) Morphological
   ii) Syntactic   iv) Semantic

Q.2 a) Explain the knowledge concepts with types of knowledge.   6
     b) What is Artificial Intelligence ? Explain importance of AI in brief.   5

OR

Q.3 a) Explain the concept of Artificial Intelligence with related fields.   6
     b) Explain the knowledge concepts with represntation of knowledge.   5

Q.4 a) Explain basic list manipulation function in list processing with example.   6
     b) How to define function in LISP with example.   5

OR

Q.5 a) Explain syntax and symantics for propositional logic.   6
     b) Explain the conditional with logical function.   5

Q.6 a) Explain message and types of messages in object oriented system.   6
     b) Explain the concept of default reasoning and closed world assumption.   5

OR

Q.7 a) Explain the concept object oriented system.   6
     b) Explain object oriented language RAND with example.   5

Q.8 a) Explain the Breadth first search and Depth first search in Blind search.   6
     b) Explain the multiple measures used in matching.   5

OR

Q.9 a) Explain the multiple Indexing and Retrieval Techniques.   6
     b) Explain the structure used in matching.   5

Q.10 a) Explain the levels of knowledge used in language understanding.   6
     b) Explain the structural representation of grammars.   5

OR

Q.11 a) Explain the Top-down and Bottom up parsing with example.   6
     b) Explain the chomsky Hierarchy of Generative Grammar.   5

****