Examination May-2014

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ARTIFICIAL INTELLIGENCE
MCA-405-A
Paper ID-B0119

Time Allowed: 03 Hrs

Max. Marks: 60

Note: Attempt one question from each section A, B, C and D and entire section E of the question paper. Use of non programmable scientific calculator is allowed.

Section A

Q1.   What is Artificial Intelligence? What are its basic elements? Explain various applications of Artificial Intelligence.   (10)

Q2.   Write notes on the following:-
(a) Unification
(b) Inference Mechanism.   (10)

Section B

Q3.   What are various languages of Artificial Intelligence? Explain various characteristics features of Prolog with examples.   (10)

Q4.   What is recursion? Explain how recursion is implemented in Prolog.   (10)

Section C

Q5.   What is expert system? Explain the architecture of an expert system.   (10)

Q6.   What is knowledge? Explain different methods of representing knowledge with their relative merits and demerits.   (10)

Section D

Q7.   What is linguistics? Explain different levels of knowledge used in language understanding.   (10)

Q8.   Explain the following terms:-   (10)
(a) Morphological
(b) Discourse and pragmatic processing.

Section E

Q9 (i)   What is resolution? Explain with example.   (02)
(ii)   Define clausal form.   (02)
(iii)   What are various operators in PROLOG?   (02)
(iv)   Explain how strings are represented in PROLOG.   (02)
(v)   What is expert system shell?   (02)
(vi)   What is knowledge acquisition?   (02)
(vii)   List any five expert systems.   (02)
(viii)   What is semantic analysis?   (02)
(ix)   What is difference between belief and knowledge?   (02)
(x)   What are different techniques of knowledge manipulation?   (02)

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