

PC-138/AK

O-2/2041

ARTIFICIAL INTELLIGENCE SYSTEMS

Paper – MS(A)-224

2nd Year (Annual)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *two* questions each from Sections A and B.
Section C will be compulsory.

SECTION – A

- I. (a) Explain basic elements of AI using Nilsson's onion model. 8
(b) Discuss application areas of AI. 8
- II. (a) Explain the process of resolution with example. 8
(b) Explain inference mechanism. 8
- III. (a) Explain the working of unification algorithm with example. 8
(b) What is general learning model? Discuss various factors affecting learning. 8
- IV. Discuss various issues in knowledge organization and manipulation. 16

SECTION – B

- V. (a) Discuss various types of reasoning. 8
(b) Explain symbolic reasoning under uncertainty. 8
- VI. What are expert systems? Explain architecture and components of expert systems. 16
- VII. What is natural language processing? Explain the steps of syntactic and semantic processing. 16
- VIII.(a) What are the components of planning systems? 10
(b) What is morphological analysis? 6

SECTION – C

(Compulsory Question)

- IX. (a) Define artificial intelligence.
(b) What are various types of knowledge?
(c) Write semantics of predicate logic.
(d) What is unification?
(e) What are the factors affecting learning?
(f) What is non monotonic reasoning?
(g) What is an expert system?
(h) What is alpha beta cutoff planning? (8×2=16)
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