

Paper Code : 21327

F-427

B. C. A. (Sixth Semester)

Examination, 2022

(New Course)

Paper No. BCA-N-602

ARTIFICIAL INTELLIGENCE

Time : Three Hours] [Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Symbols used have their usual meaning.

1. (a) What do you mean by the term 'AI'? How it is useful in today's world?
- (b) Differentiate heuristic algorithm from solution guaranteed algorithm.

(1)

P.T.O.

2. (a) Describe natural language processing with suitable example.
- (b) Define "Parsing". What are various parsing techniques?
3. (a) Explain the context free grammar (CFG) with proper example.
- (b) How Fillmore's grammar is different from CFG?
4. (a) Explain the first order predicate calculus with one example.
- (b) What are the features of "PROLOG"?
5. (a) Describe the "Minsky Frames" with examples. <https://www.mjpruonline.com>
- (b) How to represent knowledge using Horn-clauses?
6. (a) What are "Expert System"? Elaborate "MYCIN" with suitable example.

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(2)

- (b) How “Meta-knowledge” is useful in any Expert System.
7. (a) Explain the term “Pattern Recognition” in detail with its principle using one example.
- (b) How “Lisp” is different from “PROLOG”? Explain clearly with their syntax.
8. Write in brief about any **four** of the following :
- (a) Shanks Conceptual Dependency
 - (b) Semantic Nets
 - (c) DENDRAL
 - (d) Speech Recognition
 - (e) Machine Learning