

19. Explain about forward and backward chaining with an example.

20. Explain minimax algorithm in detail.

S.No. 2749

P 16 CSE 2 B

(For candidates admitted from 2016–2017 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Computer Science – Elective

ARTIFICIAL INTELLIGENCE

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20)

Answer ALL questions.

1. What do you understand by Artificial Intelligence?
2. What are the characteristics of production systems?
3. What is heuristic function?
4. What is the frame problem?
5. Differentiate propositional logic and predicate logic.
6. Define conversion to clause form.
7. Differentiate procedural and declarative knowledge.

8. Define forward and backward chaining.
9. What is Expert system?
10. Define minimax search procedure.

SECTION B — ($5 \times 5 = 25$)

Answer ALL questions, choosing either (a) or (b).

11. (a) Describe about criteria for success.
Or
(b) Explain about the breadth-first search algorithm.
12. (a) Discuss about constraint satisfaction problem.
Or
(b) Write short notes on simulated annealing.
13. (a) Write short notes on resolution in propositional logic.
Or
(b) Explain about the unification algorithm.

14. (a) Differentiate forward and backward reasoning.

Or

- (b) Write short notes on conflict resolution.
15. (a) Describe alpha beta pruning.

Or

- (b) Write short notes on speech recognition.

SECTION C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Explain about artificial intelligence problems in detail.
17. Explain the steepest-Ascent hill climbing algorithm.
18. Consider the following sentences:
John likes all kinds of food.
Apples are food.
Chicken is food.
Anything anyone eats and isn't killed by is food.
Bill eats peanuts and is still alive.
Translate these sentences into formulas in predicate logic.