বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

Question Paper

B.Sc. Honours Examinations 2020
(Under CBCS Pattern)
Semester - VI
Subject: COMPUTER SCIENCE
Paper: CC - 13 (T + P) (Artificial Intelligence – Theory + Practical)

Full Marks: 40 (Theory) + 20 (Practical) = 60
Time: 4 Hours

*Candiates are required to give their answer in their own
words as far as practicable.
Questions are of equal value.*

Answer any **one question** [within 250 words] from each Part.

Part A: Artificial Intelligence (Theory)

1. What is Turing test? Explain in your own words.

2. Define intelligent agent with their structure and behaviour.

3. Write short note on hill climbing.

4. Write short note on Means-end analysis.

5. Critically compare between Depth-first search and Breadth-first search.

6. Write short note on A* algorithm.

7. Explain alpha-beta pruning with example.

8. Write short note on Semantic net.

9. Write short note on Bayesian optimization technique.

10. Write about the different connectives of Propositional logic.

11. What is constraint satisfaction problem? How do you solve it?

12. Write short note on Recursive Transition Network (RTN).

Part B: Artificial Intelligence (Practical)

1. Write a prolog program to find the Nth fibonacci number.

2. Write a prolog program to append two lists.

3. Write a prolog program to find the minimum value in a list.

4. Write a prolog program to find the maximum of a list.

5. Write a prolog program to find a given list is palindrome or not.

6. Write a prolog program to find the reverse of a list.

7. Write a prolog program to delete an element from a list.

8. Write a prolog program to insert an element in a list.

9. Write a prolog program to find the sum of all elements in a list.

10. Write a prolog program to find the GCD of two numbers.

11. Write a prolog program to implement sequential search.

12. Write a prolog program to find the factorial of a given number.