लक्ष्यं विक्रमानम्

WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 6th Semester Examination, 2024

CMSACOR13P-COMPUTER SCIENCE (CC13)

PRACTICAL

SET-I

Time Allotted: 2 Hours | Full Marks: 10

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer any *one* question from the following $10\times1 = 10$

1. Write a prolog program to find the maximum of two numbers.
2. Write a prolog program to calculate the factorial of a given number.
3. Write a prolog program to calculate the *n*th Fibonacci number.
4. Write a prolog program to remove the *n*th item from a list.
5. Write a prolog program to implement palindrome (List).
6. Write a prolog program to implement maxlist (List, Max) so that Max is the greatest number in the list of numbers List.
7. Write a prolog program to implement sumlist (List, Sum) so that Sum is the sum of a given list of numbers List.
8. Write a prolog program to implement reverse (List, Reversed List) that reverses lists.
9. Write a prolog program to implement GCD of two numbers.
10. Write a prolog program to calculate sum of digits of a 3-digit number.
11. Write a prolog program to calculate $\frac{m!}{m+n}$.
12. Consider a family tree in prolog and the basic parent.relation given as:
    parent(X, Y)
    Now write the following relations in Prolog using basic parent relation.
    (a) child(X, Y).
    (b) grandparent(X, Y).
    (c) mother(X, Y).
    (d) predecessor(X, Y).
    (e) aunt(X, Y).

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