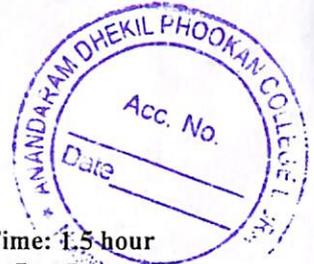


1st Semester Final Examination 2025

Subject: MATHEMATICS

Paper Name: C Programming

Paper Code: SEC0101403



Full Marks: 30

Time: 1.5 hour

1 x 5 = 5

1. Answer the following

- Define C programming?
- For p an int variable, $p = 41/10$ will return _____.
- What are input output functions in C?
- Define array with example.
- What are the different data types available in C?

2. Answer any 5 questions

2 x 5 = 10

- a. Convert the following mathematical expression into C expression

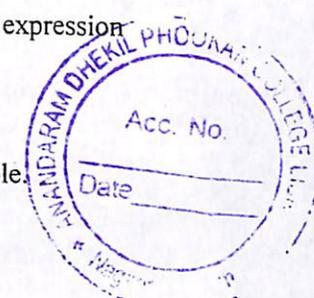
i) $p = |\log x| + \sqrt{y} \left(\frac{x}{y^2} \right)$

ii) $q = \sin \sqrt{x^2 + y^2} + \frac{\sin y}{1 + x^y}$

- b. What do you mean by flow chart? Explain with example.
c. Write a C-Programme to find the sum of the series

$$1 + 2 + 3 + \dots + n$$

- d. Using for loop write a C-Programme to find the factorial of a given positive number.
e. Write a C program to find the simple interest S.I. where $S.I. = \frac{PRT}{100}$.
f. Write a C program to add two one dimensional array.
g. Write a C-Programme to generate Fibonacci series.



3. Answer any 3 questions

5 x 3 = 15

- a. Using if- else statement write a C program to solve the quadratic equation $ax^2 + bx + c = 0$, for any given values of a,b,c.
b. What do you mean by loop? Explain different types of loop..
c. Write a C-Program to find the area of a triangle having three sides.
d. Write a C-Programme to find the sum of the digits of any given positive number.
e. Write a C program to find the transpose of a matrix.