

Model Paper– 1
Hi-Tech Institute of Engineering & Technology
B.C.A. Examination
(Semester-1st) Odd Semester
Programming Principles and Algorithm
(BCA-102)

Time: 3 Hours

Maximum Marks: 75

Faculty Name: Ms. Richa Verma

Note: Attempt questions from all sections as per instructions.

Section – A

Note: Attempt all questions.

5 x 3 = 15

1. Define Recursion. Explain with the help of example?
2. What is Algorithm? Explain with example?
3. What do you mean by primitive and Non primitive data types?
4. What do you understand by C tokens?
5. What is preprocessor directives?

Section – B

Note: Attempt any two questions.

2 x 7.5 = 15

6. Distinguish between the call by value and call by reference with the help of suitable example.
7. Write a program in C whether the given number is Prime or not.
8. What is Function? Explain function definition with suitable example.

Section – C

Note: Attempt any three questions.

3 x 15 = 45

9. Write a short note on
 - a) Loops in C
 - b) If statement
 - c) Higher level language
 - d) Compiler
 - e) Preprocessor Directives
10. Write a C program to check whether the given number is Armstrong or not.
11. Write a C program to calculate factorial of a number.
12. Discuss the following problem solving techniques :
 - 1) Trail and Error
 - 2) Divide and Conquer
13. Explain any three controls structures in C with proper syntax and examples.