Graphic Era
HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya 12 of 2011)
University under section 2(f) of UGC Act, 1956

End Term (Even) Semester Examination May-June 2025

Roll no.............................

Name of the Program and semester: Diploma 2nd Semester
Name of the Course: Fundamental of Information Technology -II
Course Code: DTIT-204

Time: 3 hour

Maximum Marks: 100

Note:
- (i) All the questions are compulsory.
- (ii) Answer any two sub questions from a, b and c in each main question.
- (iii) Total marks for each question is 20 (twenty).
- (iv) Each sub-question carries 10 marks.

Q1.   (2X10=20 Marks)
a. What are the key differences between high-level and low-level programming languages, and how do they impact the development process.
b. What are the key steps in development of a program?
c. Draw a flowchart and algorithm for to check if a number is even or odd.

Q2.   (2X10=20 Marks)
a. What are data types and keywords? Which data type would you use to store a number with decimals? Explain with an example.
b. Write a program in c to print even number from 2 to 20 by using while loop.
c. Explain Break and Switch Statement with example.

Q3.   (2X10=20 Marks)
a. What are standard library functions? Write standard library functions for input output function, String function and Mathematical function.
b. Differentiate between Local variable, Global variable and static variable.
c. What is String? Write a program to concatenation of two strings.

Q4.   (2X10=20 Marks)
a. What is a pointer? Write the different types of pointer.
b. What is the relationship between pointer and array? How do you link a pointer to an array?
c. Write a program in c to sum of array element using pointer .you have to store 5 values in memory address.

Q5.   (2X10=20 Marks)
a. Define Structure. How do you link a pointer to structure?
b. Explain the key differences between a structure and a union in C.

c. Explain the concept of **ASCII** (American Standard Code for Information Interchange). List the ASCII values for the following characters:

- 'A'
- 'Z'
- '0'
- '$