

POKHARA UNIVERSITY

Level: Bachelor
Programme: BE
Course: Programming in C

Semester: Fall

Year : 2021
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) What are the different steps in problem solving using computer? Briefly explain each step. 8
b) What is a variable? Explain different data types in C with examples. 7
2. a) What are the control statements? Differentiate between while and do while loops with suitable example. 8
b) Write a program to print even numbers from 51 to 100. 7
3. a) Write a recursive program to generate the 10 terms of Fibonacci sequence starting from. 0 8
b) Differentiate between function call by value and function call by reference with suitable examples. 7
4. a) What do you mean by <string.h>? List any 7 important string handling functions. Also write a program to print the following pattern. 8

```
*  
*  *  
*  *  *  
*  *  *  *
```


b) Write a program to sort N elements of an integer array in ascending order. 7
5. a) Does a function return multiple values? When and how a function will return multiple values, illustrate with suitable examples. 7
b) Write a program to pass the elements of an array to a function using a pointer. 8

6. a) Why do you need a structure? Explain in detail how a structure differs from an union with suitable programs. 7
- b) Write a program to read the name, author, and price of 200 books in a library and store the information into file "library.dat". Also print the book name and price of those books whose price is above Rs.350. 8
7. Write short notes on: (**Any two**) 2×5
- a) Static, local and global variable
 - b) Multidimensional Array
 - c) String Handling Functions