POKHARA UNIVERSITY

Level: Bachelor   Semester – Spring   Year   : 2008
Programme: BE   Full Marks: 100
Course: Programming in C   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 do you mean by generation of computer? Why higher generation computers are better?   5

    b) What is the difference between a flow chart and an algorithm?   5

    c) Define operator. Describe four different types of operators in brief.   5

2. a) How does the decision control mechanism differ from loop control mechanism in C? Explain with examples.   7

    b) Write a complete C program for the following output: 8

    "Choose any options you like!!"

        i.   Program to print no.s in series (1 2 3 4 5 ……)

        ii. Find whether the no is odd or even.

        iii. To find S.I.

        iv. Exit

    (Note: Each option given here should solve the problem with the data entered by the user.)

3. a) Without using function also we can write a program. But than we use functions in our program. What are the benefits of using them? Write a program using function (any type) to generate a Fibonacci series (i.e. 1 1 2 3 5 6 …..)   8

    b) What is a string? Write a program to check whether the given string is a palindrome or not? (Palindrome: word read from left or right gives the same spelling like MADAM, EYE etc)   7

4. a) Write a program to display the following menu: 10

    MENU

i.　To check if the given number is odd or even

　　　　ii.　To find the sum of N numbers

　　　　iii.　To find the sum of squares of two numbers

　　　　iv.　Exit from Program

and perform tasks as per user's choice unitl the user wants to exit.

b) What is the difference between calling a function by value and by reference? Write a program to swap the contents of two variables using call by reference. 　5

5. a) Write a program for the transposition of 3×3 matrix inputted by the user. 　7

b) What do you mean by dynamic memory allocation? Write an example program using dynamic memory allocation. 　8

6. a) How structure is different from Unions? Form a structure of a 'student' with structure fields: name, rollno, ad, faculty and DOB: year, month, date. Also show the data inputting and accessing method for a structure variable. 　8

b) What signifies FILE in file handling program? What are the functions of fopen () and fclose (). Give its syntax too. 　7

7. Write short notes on *(Any Two)* 　2×5

a) Preprocessor Directives

b) Union

c) File opening modes

d) Compiler and Interpreter