First Semester FYUGP Computer Science Examination NOVEMBER 2024 (2024 Admission onwards) KU1DSCCSC101 (FUNDAMENTALS OF PROGRAMMING WITH C)
(DATE OF EXAM: 2-12-2024)

Time : 90 min   Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. What is a header file? Provide examples of commonly used header files in C. 2

2. Write a code snippet to write a single character to the output using the putchar() function. 2

3. What are the usage of the printf() and scanf()functions. 2

4. Define a nested if statement and give an example. 2

5. Write a C program to check whether the given number is even or odd. 2

6. What will be the output of the following C
   int i = 0;
   do
   printf("i++;
   while (i < 3); 2

7. Define a one-dimensional array in C. 2

8. What does the strlen function do? Write a code snippet to demonstrate its usage. 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. Write a short note on algorithm and how it applies to programming. 6

10. Write a program that uses both printf() and scanf() to create a simple interactive calculator. 6

11. Explain the else-if ladder with an example where multiple conditions are checked. 6

12. Write a program using while loop to find the sum of all even numbers between 100 and 200 6

13. Explain one-dimensional arrays in detail, including declaration, initialization, and access. 6

14. Create a program that compares two strings given by the user and print whether they are same or not using string manipulation functions. 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. Differentiate between while and do-while. Illustrate with program example. 14

16. (a) Define bitwise operators and explain their application in programming with examples. 7

    (b) Discuss how operators in C are classified. Provide examples for each category. 7