First Semester FYUGP Degree Supplementary Examination
January 2025 /Regular Examination November 2024
KU1DSCCAP101 - FOUNDATIONS OF COMPUTERS AND PROGRAMMING
2024 Admission onwards

Time : 1.5 hours   Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. Discuss the importance of operating systems and their primary functions in managing hardware and software resources.

2. What are the basic functions of an Operating System in a computer?

3. Differentiate between LAN and WAN

4. What is the difference between ASCII and EBCDIC codes?

5. Write a simple pseudocode to find the sum of first N natural numbers

6. Write about goto statement.

7. Write the syntax of for loop

8. Write a short note on ID array declaration and array initialization

Section B

Answer any 4 questions. Each carry 6 marks.

9. What are different generations of computers and their characteristics?

10. Explain the difference between supervised and unsupervised learning, with examples.

11. Explain the concept of 2's complement representation and its role in signed arithmetic

12. What is the use of library functions in C. Mention few functions and usage.

13. Explain the working principle of switch statement with example?

14. Write the syntax to declare and initialise an integer and character array.

Section C

Answer any 1 questions. Each carry 14 marks.

15. (a) Explain any 3 symbols used to draw flowchart with its meaning and write the flowchart to find the factorial of a number? 7

    (b) Discuss the concepts of constants, variables, and data types in C. Write a program to demonstrate the use of different data types and constants in C. 7

16. Write Laws of Boolean Algebra. Apply Boolean algebra laws to simplify Boolean Expression A.(A + B). Also realise the final expression using logic gates.