

First Semester FYUGP Degree (Reg/Sup) Examination
November 2025
KU1DSCCSC103 - FUNDAMENTALS 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. write the functions of the Central Processing Unit (CPU).
2. What is the significance of registers in the CPU architecture?
3. Write a simple pseudocode to find the sum of two numbers .
4. what is the use of variables in programming and differentiate between integers, floats, and strings in the usage of memory.
5. Convert the hexadecimal number A3 into its binary and decimal equivalents.
6. What is Gray code?
7. Differentiate between application software and system software with examples.
8. How do flowcharts aid in programming? Draw a simple flowchart for finding the maximum of two numbers.

Section B

Answer any 4 questions. Each carry 6 marks.

9. Describe the process of converting a decimal number to its binary, hexadecimal, and octal equivalents. Provide an example of each conversion.
10. Perform binary addition and subtraction, and explain how binary arithmetic differs from decimal arithmetic. Provide examples of binary addition and subtraction.
11. Differentiate between ASCII and Unicode in terms of character representation. Discuss the range and usage of both encoding systems.
12. Explain the advantages of computer networks
13. Outline the stages of the program development life cycle.
14. Explain the functions of an assembler and compiler in programme execution. How do they differ each other?

Section C

Answer any 1 questions. Each carry 14 marks.

15.
 - (a) Explain the major characteristics of computer.
 - (b) Compare primary and secondary storage in a computer system with examples
16.
 - (a) Explain the characteristics of good program
 - (b) Explain different types of iterative control structures in programming. Write the algorithm to find the sum of 50 natural numbers.