

Reg No:.....
Name :.....

K24FY 1318 (B)

First Semester FYUGP Computer Science Examination
NOVEMBER 2024 (2024 Admission onwards)
KU1DSCCSC103 (FUNDAMENTALS OF COMPUTERS
AND PROGRAMMING)
(DATE OF EXAM: 4-12-2024)

Time : 90 min

Maximum Marks : 50

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

1. what are the functions of the control unit in the CPU. 2
2. Explain the steps to convert an octal number into a binary number. Provide an example. 2
3. What do you mean by software acquisition 2
4. List various stages of Program Development Life Cycle (PDLC) and briefly describe its stages. 2
5. Write a simple pseudocode to find the sum of two numbers . 2
6. what is the use of variables in programming and differentiate between integers, floats, and strings in the usage of memory. 2
7. What do you understand by the term debugging 2
8. What is conditional execution? Provide an example using an "if" statement to check if a number is positive or negative. 2

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

9. Discuss how a computer processes data, its ability to store information, and its versatility in performing multiple tasks. 6
10. Describe the process of converting a decimal number to its binary, hexadecimal, and octal equivalents. Provide an example of each conversion. 6
11. Explain the basic concepts of a compiler and an interpreter. How do they differ in terms of execution of source code? Provide examples of programming languages that use each. 6
12. Explain the functions of an assembler and compiler in programme execution. How do they differ each other? 6
13. Explain flow chart with its symbols 6
14. Provide examples of how each control structure is used to manage the flow of a program. 6

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

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15. (a) Explain the generations of computers in detail. 7
(b) Compare primary and secondary storage in a computer system with examples 7
16. (a) Convert a decimal number to its binary, hexadecimal, and octal equivalents. Explain the process with an example. Include step-by-step instructions for the conversion. 7
(b) Perform binary addition, subtraction, illustrating each operation with examples. Show the steps involved in each operation. 7