

21160



I SEMESTER B.Sc. EXAMINATION – MARCH/APRIL 2022

SCHEME: CBCS (NEP)

COMPUTER SCIENCE

COMPUTER FUNDAMENTALS AND PROGRAMMING IN C

Time: 2 ½ Hours

Max Marks: 60

Instruction: Answer Part A & Part B.

PART-A

I Answer any Eight questions.

2x8=16

1. Name the Electronic components used in I and II generations of computer.
2. Differentiate Compiler and Interpreter.
3. Write the syntax to declare and initialize a variable.
4. What is the purpose of using scanf()? Write its general syntax.
5. What are the special operators supported by C?
6. What is type conversion?
7. Write the syntax of 'else-if' ladder.
8. What is the purpose of using 'break' statement?
9. How do you declare and initialize string variables?
10. What is the purpose of using a Pointer?
11. Differentiate Call by Value and Call by References.
12. Mention the advantages of Structure.

PART-B

II Answer all the questions.

11x4=44

13. a) Explain the main characteristics of computer.

5

b) Convert

6

(i)  $2BA3_{(16)} = \underline{\hspace{2cm}} (?)_2$

(ii)  $147_{(10)} = \underline{\hspace{2cm}} (?)_2$

(iii)  $101011_{(2)} = \underline{\hspace{2cm}} (?)_{10}$

PTO



OR

- c) Briefly explain different types of Computers based on Size. 6  
d) Describe the structure of C program with an example. 5

14. a) List and explain unformatted I/O functions. 5  
b) Explain operator precedence with an example in C. 6

OR

- c) With an example explain Arithmetic operators and logical operator in C. 6  
d) Explain conditional operator and bitwise operator in C with example. 5

15. a) Differentiate while and do while Loop. 4  
b) Write a program to find the largest and smallest element in a list. 7

OR

- c) How to declare and initialize 2-D array? Explain with an example. 6  
d) Explain String handling functions with example. 5

16. a) Write a C program to swap two numbers using pointers. 5  
b) Explain the components of User defined functions. 6

OR

- c) With an example explain how to access structure members. 6  
d) Differentiate Structure and Union. 5

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