R0143	Sub. Code
	2BS1C1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2023

First Semester

Software Development

FUNDAMENTALS OF C PROGRAMMING

(CBCS – 2022 onwards)

Time : 3 Hours Maximum : 75 Marks

Section A $(10 \times 1 = 10)$

Answer **all** the following objective by choosing the correct answer.

1. "Ac 123" is a type of ———— data. (CO1, K1)

   (a) Symbolic (b) Alphanumeric

   (c) Alphabetic (d) Numeric

2. Program execution always begin with (CO1, K3)

   (a) scan() (b) printf()

   (c) main() (d) none

3. Which of the following is not a looping structure? (CO2, K4)

   (a) For loop (b) While loop

   (c) Do...while loop (d) if...else

4. Which function will you choose to joint two words? (CO2, K4)

   (a) strcpy() (b) strcat()

   (c) strncon() (d) memcon()

5. Sub programs are referred to as (CO3, K5)

(a) functions (b) methods

(c) both (d) none

6. How do an initialize an array in C? (CO3, K5)

(a) int arr[3]=(1,2,3); (b) int arr(3)={1,2,3};

(c) int arr[3]={1,2,3}; (d) int arr(3)=(1,2,3);

7. Arrays created at run time is called as (CO4, K2)

(a) dynamic array (b) static array

(c) both (a) and (b) (d) none

8. A point variable is declared as (CO4, K3)

(a) int *a (b) int **a

(c) &a (d) → a

9. What is meant by 'a' in the following file operation? (CO5, K1)

(a) Attach (b) Append

(c) Apprehend (d) Add

10. In C language, FILE is of which data type? (CO5, K5)

(a) int (b) char *

(c) struct (d) string

Section B (5 × 5 = 25)

Answer **all** questions not more than 500 words each.

11. (a) Write pseudo code for biggest of two numbers. (CO1, K3)

Or

(b) What is Data Type? Explain its types with example. (CO1, K1)

12. (a) Write short notes on Switch statement with suitable example. (CO2, K4)

Or

(b) Write a C program to find the factorial of a number. (CO2, K4)

13. (a) How to read and write the values in two dimensional array? (CO3, K5)

Or

(b) Explain the one dimensional array with an example program. (CO3, K5)

14. (a) Illustrate pointer arithmetic with suitable example. (CO4, K2)

Or

(b) Explain Double pointer with suitable example. (CO4, K3)

15. (a) Write a C program using rewind() function. (CO5, K1)

Or

(b) Write a simple C program using fseek() function. (CO5, K5)

Section C ($5 \times 8 = 40$)

Answer **all** questions not more than 1000 words each.

16. (a) Discuss about the structure of a C program. (CO1, K3)

Or

(b) Draw a flowchart for sorting the n numbers. (CO1, K1)

17. (a) Explain the looping statements. (CO2, K4)

Or

(b) What is storage classes? Explain. (CO2, K4)

18. (a) Write a C program to print the largest of 10 numbers using arrays. (CO3, K5)

Or

(b) List and explain the string function. (CO3, K5)

19. (a) What is pointer? List out the advantages. (CO4, K2)

Or

(b) Discuss about array of pointers. (CO4, K2)

20. (a) What is a file? Explain the fgetc() and fputc() functions. (CO5, K1)

Or

(b) Write a C program using ftell() function. (CO5, K5)

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B.Voc. DEGREE EXAMINATION, NOVEMBER – 2023

First Semester

Software Development

FUNDAMENTALS OF DIGITAL COMPUTER AND PROGRAMMING

(CBCS – 2022 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** the following objective questions by choosing the correct option

1. Which of the following is not a positional number system? (CO1, K1)

   (a) Roman Number System

   (b) Octal Number System

   (c) Binary Number System

   (d) Hexadecimal Number System

2. The binary equivalent of the decimal number 10 is _____ (CO1, K1)

   (a) 0010 (b) 10

   (c) 1010 (d) 010

3. Which of the following are the universal logic gages? (CO1, K1)

   (a) AND (b) NAND

   (c) NOR (d) Both (a) and (b)

4. According to De-Morgan's Theorem: NAND =————— (CO1, K2)

(a) Bubble AND (b) Bubbled NOR

(c) Bubbled XOR (d) Bubbled OR

5. Logic high in Boolean language is represented with ————— (CO1, K1)

(a) Logic 0 (b) Logic 1

(c) Logic X (d) None of the above

6. In the toggle mode, a JK flip-flop has (CO1, K2)

(a) J = 0, K = 1 (b) J = 1, K = 1

(c) J = 0, K = 0 (d) J = 1, K = 0

7. The stability of the algorithm is described as how the algorithm handles ————— element. (CO1, K1)

(a) Equal (b) Repeated

(c) Both (a) and (b) (d) None of these

8. What is algorithm? (CO1, K1)

(a) Program (b) Procedure

(c) Systematic work (d) Hardwired work

9. A flowchart is a ————— representation of an algorithm using various symbols, shapes, and arrows to explain a process or programme. (CO1, K4)

(a) Graphical (b) Visual

(c) Both (a) and (b) (d) None of the above

10. Why do we use a flowchart? (CO2, K2)

(a) To have a better understanding of how a process works

(b) To evaluate a process in order to improve it.

(c) To explain how a process works to others

(d) All of the above

Part B (5 × 5 = 25)

Answer **all** the following questions not more than 500 words each.

11. (a) What is Binary Addition? (CO2, K1)

Or

(b) Write about the Boolean Algebra. (CO1, K1)

12. (a) Tell about NOR. Highlight on NOR Gate as UBB. (CO2, K1)

Or

(b) Write short notes on Combinational function. (CO2, K1)

13. (a) List out the types of memory not directly addressable in CPU. (CO1, K1)

Or

(b) What is BCD Adder functions. (CO2, K1)

14. (a) List out the Symbols and its Function used in flowchart. (CO3, K1)

Or

(b) Write a algorithm for Determining the Greater then Three Numbers. (CO2, K1)

15. (a) Find out the sum of First N terms of the following Series, 5+55+555+5555+...Up to N terms. (CO1, K1)

Or

(b) Write an Algorithm to determine the name of the starting day of any given year. (CO2, K1)

Part C (5 × 8 = 40)

Answer **all** the questions
not more than 1000 words each.

16. (a) Error detection and Error Correction codes. Explain in detail. (CO1, K2)

Or

(b) Explain (i) Applications of XOR Gate (ii) Exclusive NOR, Gate in detail. (CO2, K3)

17. (a) Describe De Morgan's Theorem. (CO3, K1)

Or

(b) Define K-Map. Explain Maps, Truth Tables, and Boolean Expression of K-Map. (CO2, K4)

18. (a) What is adder and its types? Explain Full Adder with its Logic diagram and Functions. (CO2, K1)

Or

(b) Explain the Principles in RS and Clocked RS Flip Flop. (CO3, K1)

19. (a) Write the Algorithm to categorize the shape of a quadrilateral as either a Square, rhombus, rectangle, parallelogram having input length of 4. (CO1, K1)

Or

(b) Write a Algorithm for obtaining the sum of first 30 natural Numbers. (CO3, K1)

20. (a) Draw a flowchart to rearrange the elements in an array so that they appear in reverse order. (CO1, K1)

Or

(b) Write the Algorithm to Court the number of vowels, consonants and special characters in a given string. (CO3, K1)

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R0145	Sub. Code
	2BS3C1

B.Voc. DEGREE EXAMINATION, NOVEMBER – 2023

Third Semester

Software Development

FUNDAMENTALS OF OPERATING SYSTEM

(CBCS – 2022 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A $(10 \times 1 = 10)$

Answer **all** the following objective questions by choosing the correct option.

1. When was the first operating system developed? (CO1, K2)

   (a) 1948 (b) 1949

   (c) 1950 (d) 1951

2. What is the full name of FAT? (CO1, K3)

   (a) File Attribute Table

   (b) File Allocation Table

   (c) Font Attribute Table

   (d) Format allocation Table

3. Which of the following is a condition that causes deadlock? (CO1, K1)

   (a) Mutual exclusion (b) Hold and wait

   (c) Circular wait (d) All of these

4. Where are placed the list of processes that are prepared to be executed and waiting? (CO1, K4)

(a) Job queue (b) Ready queue

(c) Execution queue (d) Process queue

5. If a process fails, most operating system write the error information to a ————. (CO1, K3)

(a) new file (b) another running process

(c) log file (d) none of the mentioned

6. Where is the operating system placed in the memory? (CO3, K5)

(a) either low or high memory

(b) in the low memory

(c) in the high memory

(d) none of the mentioned

7. Where is the operating system placed in the memory? (CO1, K4)

(a) either low or high memory

(b) in the low memory

(c) in the high memory

(d) none of the mentioned

8. ———— is the process of communicating confidential information in an unreadable format between legitimate users? (CO1, K4)

(a) Cryptography (b) Symmentricity

(c) Asymmenticity (d) All the above

9. Which of the following is the first UNIX editor? (CO1, K5)

(a) vi (b) emacs

(c) ex (d) ed

10. Which of the following is not a feature of Unix? (CO1, K5)

(a) multiuser (b) easy to use

(c) multitasking (d) portability

Part B $(5 \times 5 = 25)$

Answer **all** the questions not more than 500 words each.

11. (a) What is the importance of Booting Impression in OS? (CO1, K2)

Or

(b) Write short notes on file system. (CO2, K2)

12. (a) Tell about process management concept importance. (CO3, K4)

Or

(b) What is Dead Lock? How it occurs? (CO2, K4)

13. (a) Write short notes on Virtual memory management system. (CO3, K5)

Or

(b) Write about the Access Methods. (CO2, K3)

14. (a) Define GUI? List down the features of GUI. (CO3, K4)

Or

(b) Write about the Types of Viruses. (CO2, K4)

15. (a) What is File System in Unix? (CO3, K4)

Or

(b) Tell about the Filter in UNIX and its functionality. (CO2, K5)

Part C (5 × 8 = 40)

Answer **all** the questions not more than 1000 words each.

16. (a) What is Kernel Architecture in Detail? (CO1, K1)

Or

(b) Explain the main purpose of Operating System and its functions. (CO1, K3)

17. (a) Explain about the Scheduling in OS. (CO2 K4)

Or

(b) What are Dead Lock Strategies in Detail? (CO1, K1)

18. (a) What is Virtual Memory Management System Process in Detail? (CO3, K3)

Or

(b) Explain about Directory and its functions. (CO1, K5)

19. (a) Detail and explain about GUI and its components. (CO2, K4)

Or

(b) Compare the Attacks of Threads in detail. (CO3, K4)

20. (a) What are the Core Components of UNIX? (CO2, K5)

Or

(b) List out the Basic Commands in UNIX with example program. (CO1, K4)

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