B. C. A. (Sem. I) (CBCS) (W.E.F. 2016) Examination

August - 2022

**Problem Solving Methodologis &
Programming in C : CS-02**

Faculty Code : 003
Subject Code : 1031002

Time : $2\frac{1}{2}$ Hours]   [Total Marks : **70**

Instruction : Attempt any five questions.

1   (a)   Attempt the following objective Question L   4

      (1)   How many keywords available in C?

      (2)   How many arithmetic operators available in C?

      (3)   Who invented C language?

      (4)   The _____ provides pictorial representation of given problem.

    (b)   What is Constants?   2

    (c)   What is Type casting? Explain with Example.   3

    (d)   Explain Dry-run and its Use with suitable example.   5

2   (a)   Attempt the following objective question :   4

      (1)   _____ is a procedure or step by step process for solving a problem.

      (2)   The _____ symbol is used to represent decision in flowchart.

      (3)   What does an arrow represent in a flow chart?

      (4)   C Language developed at _____?

    (b)   What is identifier?   2

    (c)   Difference between traditional and modern C?   3

    (d)   Explain the basic structure of a C Program in detail. 5

3 (a) Attempt the following objective question : 4

    (1) How many loops available in C?

    (2) Name the loop that executes at least once?

    (3) While loop is a which type of loop _____?

    (4) A loop containing another loop in its loop its body is called _____.

  (b) What is Break statement? 2

  (c) Write a C program to calculate the sum of first n natural numbers. 3

  (d) Write any simple C program which contain nested loop. 5

4 (a) Attempt the following objective question : 4

    (1) Do while loop is which type of loop _____

    (2) One IF statement can have multiple _____?

    (3) What is break statement in C?

    (4) 'What is Continue statement?

  (b) What is Conditional ternary operator? 2

  (c) Explain control structure with example. 3

  (d) Explain types of loop in detail with example. 5

5 (a) Attempt the following objective question : 4

    (1) What is the use of Strcpy() ?

    (2) What is the use of floor()?

    (3) What is the use of getchar()?

    (4) What is the use of tolower()?

  (b) What is Function call by reference ? 2

  (c) What is Recursion ? Explain with suitable example. 3

  (d) Explain types of user defined functions with suitable example. 5

6 (a) Attempt the following objective question   **4**

     (1) What is the use of malloc()?

     (2) What is the use of rand()?

     (3) What is the use of clock()?

     (4) What is the use of isalpha()?

     (b) What is Pointers?   **2**

     (c) Explain Storage classes in detail.   **3**

     (d) Explain Passing and returning values with suitable example.   **5**

7 (a) Attempt the following objective question :   **4**

     (1) Array index starting form _____?

     (2) Which symbol is used to declare an array variable?

     (3) Which keyword is used to create a structure_____?

     (4) Array is a _____ data. structure.

     (b) What is structure?   **2**

     (c) Difference between Structure & Union.   **3**

     (d) Explain Nested structures with suitable example.   **5**

8 (a) Attempt the following objective question :   **4**

     (1) Which data type holds Array index?

     (2) 2-D array is a collection of _____.

     (3) Which operator use for access pointer to structure?

     (4) Maximum number of elements in the array declaration int a[5] [8] is _____

     (b) What is a String array?   **2**

     (c) Explain Types of arrays with suitable example.   **3**

     (d) Explain Arrays and Matrices with suitable example.   **5**

9 (a) Attempt the following objective question : 4

(1) What is the use of fopen()?

(2) What is the use of rename()?

(3) What is the use of fscanf()?

(4) What is the use of fseek()?

(b) What is File Handling? 2

(c) What is I/O Operations? Explain in detail. 3

(d) Explain Command line arguments with suitable example. 5

10 (a) Attempt the following objective question : 4

(1) A pointer that is pointing to nothing is called _____.

(2) Which operator is used to declare the pointer variable?

(3) Which operator is known as address of operator?

(4) What is meaning of pointer to pointer?

(b) What is the use of pointers in Dynamic Programming? 2

(c) What is Pointer within Array? Explain in detail. 3

(d) Explain Pointers within structure with suitable example. 5

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