SUBJECT CODE: 19CS/MC/PO24

B.C.A. DEGREE EXAMINATION – APRIL 2022
SECOND SEMESTER

COURSE : MAJOR CORE
PAPER : PROCEDURE ORIENTED PROGRAMMING
TIME : 1 ½ HOURS   MAX. MARKS: 50

SECTION A

ANSWER ALL THE QUESTIONS   **(10 × 1 = 10)**

Choose the correct answer

1. int a [] = {10, 20, 30};
    int *p = a;
    Choose the correct notation to access the 3rd element in the array a?
    a. *p + 2   b. *(p + 2)   c. p + 2   d. *(p + 2)

2. Choose the correct statement about C structures.
    a. A structure can contain same structure element as its member
    b. The structure size is only limited by the physical memory of that PC
    c. Unlimited number of members can be defined in a structure.
    d. All of the above

3. _____ is true regarding makefiles.
    a. Projects can only have makefiles if there are more than three files.
    b. There can be any number of makefiles in a project
    c. There can only be one target – dependency specified in a makefile
    d. All of the above

4. What will be the output after executing $./prog 1 7 2?
    int main(int argc, char *argv[])
    {
      int j;
      j = argv[1] + argv[2] - argv[3];
      printf("%d", j);
      return 0;
    }
    a. Error   b. 6   c. Garbage value   d. None of these

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5. What is the output?
    ```
    #include<stdio.h>
    #define LOGIC(a,b) (a==b)
    int main()
    {
       if(LOGIC(5,5))
       {
          printf("SAME ");
       }
       return 0;
    }
    ```
    a. 5==5   b. 1   c. SAME   d. Compilation error

Fill in the blanks

6. The _____ format specifier is used to print strings.
7. Union members can be accessed by the _____ operator.
8. Variables declared in other files can be accessed by a file using _____ keyword.
9. _____ is the operator used to redirect errors.
10. Multiline macros are separated using _____.

SECTION - B

ANSWER ALL THE QUESTIONS   **(5 × 2 = 10)**

11. Differentiate malloc and calloc.
12. How are unions different from structures?
13. What are build files and where are they used?
14. How can structures be saved into files? Explain with an example.
15. What are macros?

SECTION - C

ANSWER ANY SIX QUESTIONS   **(6 × 5 = 30)**

16. With an example show how arrays can be passed to functions with pointers as parameters.
17. Write a C program to print the length of a string without using string functions.
18. When are structures useful? Explain with an example.
19. What are bitfields? How are they used in C?
20. With an example, explain how makefiles can be created.
21. Write short notes on fprintf and fscanf functions.
22. Explain how command line arguments can be used in C.
23. Write short notes on conditional compilation.

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