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Question Paper Code : X 10310

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020/
APRIL/MAY 2021
Second Semester
Computer Science and Engineering
CS 8251 – PROGRAMMING IN C
(Common to : Computer and Communication Engineering/ Information Technology)
(Regulations 2017)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. Distinguish between character and string.

2. When to use global variable in programming ?

3. What is the starting index of an array ?

4. What are the different ways of initializing array ?

5. What is pointer arithmetic ?

6. Distinguish between call by value and call by reference.

7. How can you access the members of the Union ?

8. Specify the use of typedef.

9. What are unformatted data files ?

10. Write short note on State Transaction Processing.

PART – B   (5×16=80 Marks)

11. a) Discuss about preprocessor directive with example program.

(OR)

b) Summarize the various types of operators in 'C' language along with its priority and justification.

12. a) Describe the following functions with examples.

      i) strlen().   **(4)**

      ii) strcpy().   **(4)**

      iii) strcat().   **(4)**

      iv) strcmp().   **(4)**

                      (OR)

   b) Write a C program to sort the n numbers using selection sort and Trace it using following values 64, 25, 12, 22, 11.

13. a) Explain in detail about recursive function with sample code.

                      (OR)

   b) Write a C program for Swapping of two numbers and changing the value of a variable using pass by reference.

14. a) Discuss about the following.

      i) Singly linked list and operations (insertion, deletion, searching) with code segment.   **(10)**

      ii) Advantages and disadvantages of singly linked list.   **(6)**

                      (OR)

   b) C program to Add Two Distance (in inch-feet) System Using Structures.

15. a) Explain the types of file processing with its suitable application.

                      (OR)

   b) Write a C program to do the following.

      i) Create a text file 'input.txt'.   **(8)**

      ii) Print the contents of file in reverse order.   **(8)**