

Reg. No. :

**Question Paper Code : 90408**

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022.

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. Define Compiler.
2. Differentiate break and continue statement.
3. Define Array.
4. State the difference between mean, median and mode.
5. Give an example for recursive function.
6. Name any two math inbuilt functions and its usage.
7. What is a pointer? How do you declare it?
8. What is the use of typedef?
9. Name any two file input functions.
10. What is the use of ftell ( ) function?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the various types of decision-making statements with syntax and example. (8)  
(ii) Give the basic structure of a C program and explain its components. (8)

Or

- (b) (i) Define datatype. Describe the various datatypes used in C programming. (8)  
(ii) Discuss about different looping statements with syntax and example. (8)
12. (a) (i) Write a C program to get 'n' numbers in an array and print the sum of odd numbers and even numbers. (8)  
(ii) Write a C program to check whether the input string is palindrome or not. (8)

Or

- (b) (i) Write a C program to find the transpose of a matrix. (8)  
(ii) Write a C program to implement binary search concept. (8)
13. (a) (i) Write a C program to find the factorial of a number using recursion. (8)  
(ii) Differentiate call by value and call by reference with suitable example. (8)

Or

- (b) (i) Explain any four string in-built functions with syntax and example. (8)  
(ii) Write a C program to get 'n' names in an array and sort it. (8)
14. (a) (i) Describe the usage of nested structure with suitable example. (8)  
(ii) Write a C program to get 5 subject marks of 'n' students and compute the total and average using array of structures. (8)

Or

- (b) (i) Briefly discuss about self-referential structures with an example. (8)  
(ii) With syntax, give the importance of malloc( ), calloc( ) and realloc( ). (8)

15. (a) (i) Discuss about the various file modes used in file processing. (8)  
(ii) Write a C program to copy the content of one file into another file. (8)

Or

- (b) (i) Bring out the pros and cons of sequential and random file access. (8)  
(ii) Write a brief note on the working of command line argument. (8)

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