

ANNA UNIVERSITY COIMBATORE
B.E. / B.Tech. DEGREE EXAMINATIONS - DECEMBER 2008
THIRD SEMESTER – CSE & IT
CS 302 – ADVANCED C PROGRAMMING

PART B (5 × 12 = 60 Marks)
Answer Any FIVE Questions

Time: Three Hours

Maximum: 100 Marks

PART A – (20 x 2 = 40 Marks)

Answer ALL Questions

1. What are the four scopes that determine the visibility of an identifier in Standard C?
2. What are register variables?
3. List the advantages of array processing.
4. Distinguish between string and character array.
5. Why do we need pointers?
6. What is Multiple Indirection?
7. Mention two built in arguments that are used to receive command line arguments?
8. Give two examples for recursive functions.
9. Differentiate between structure and union.
10. How do we declare a pointer to a structure?
11. Illustrate enumerated data type with an example.
12. How the members in a structure are accessed in C?
13. Briefly explain the purpose of a file pointer.
14. What are the various modes of opening a file?
15. List the two function used to handle strings in file I/O?
16. How do we seek a specific byte in a file?
17. What is #define directive?
18. What is function like macro?
19. What are the most commonly used conditional compilation directives?
20. Give an example for declaring variable length parameter lists?

- 21.a) An Economic survey is conducted to study the living condition of 15,000 people and monthly income data is collected. Write a program in C , using if Statement , to find the number of people whose income is
(i) < 1000 per month (ii) between 1000 and 3000 per month and
(iii) > 3000 per month (6)
- b) Rewrite the above program using switch-case statement (6)
22. Read 100 numbers and store in an array. Write a program in C to arrange the numbers in ascending order using
(i) WHILE statement (ii) FOR statement. (6+6)
- 23.a) Explain the pointer to function using a suitable example. (8)
- b) Write a recursive function to find factorial (n) (4)
- 24.a) Explain the array within a structure with an example. (8)
- b) Explain the syntax and uses of the following commands (4)
(i) ftell (ii) fsetpos

25. The following student details are to be stored using structure variable:
Class, Rollno, student name, father name, address (Doorno, Street, City, Pincode) and Family Income. Develop a C program to give the details of students.
- (i) Who are from a city of given pincode (Input the Pincode)
 - (ii) Whose family income is < Rs. 2000 (iii) whose name starts with the alphabet "S" (12)
26. Write a program in C to find (i) number of characters (ii) no. of words (iii) no. of lines in a text file. (12)
27. Explain the uses and syntax of various preprocessor directive commands. (12)
28. a) Explain the variable length argument list with an example. (6)
- b) Write a program in C for comparison of two strings without the use of strcmp() function. (6)

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