

5 SEM TDC STSH (CBCS) C 12

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(Held in January/February, 2022)

STATISTICS

(Core)

Paper : C-12

(Statistical Computing Using C Programming)

Full Marks : 50

Pass Marks : 20

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer from the following alternatives : 1×5=5

(a) Which is the only function that all C programs must contain?

(i) start()

(ii) system()

(iii) main()

(iv) printf()

(Turn Over)

(b) Which of the following escape sequences moves the cursor position to the new line?

(i) \n

(ii) \r

(iii) \t

(iv) \v

(c) Nesting is allowed for which of the following statements?

(i) If

(ii) If else

(iii) Switch

(iv) All of the above

(d) Where the default values of parameter have to be specified?

(i) Function call

(ii) Function definition

(iii) Function prototype

(iv) None of the above

(e) Which of the following operations is allowed to be performed on a pointer variable?

(i) ptr+1

(ii) ptr-1

(iii) ptr++ and ptr--

(iv) All of the above

2. Answer the following questions in brief :

2×5=10

(a) What is the difference between ++a and a++?

(b) What is the use of getchar() and putchar() in C?

(c) What is the disadvantage with do-while loop?

(d) Distinguish between formal parameter and actual parameter.

(e) What is pointer variable?

3. Answer any two of the following questions :

(a) Write a short history of C programming. What are the advantages and disadvantages of C programming? 3+4=7

(Turn Over)

(b) What do you mean by identifiers? State the rules for naming identifiers. Give some examples of valid and invalid identifiers. $1+4+2=7$

(c) Describe the basic structure of C programs. Explain briefly about basic and enumerated data types. $4+3=7$

(d) What do you mean by operators? Explain any two operators with examples. What is the difference between = symbol and == symbol? $1+4+2=7$

4. (a) What is a loop? Give the structure of for loop. Explain about break statement and goto statement. $1+3+3=7$

Or

(b) What is an array? Why is it necessary to give the size of an array in array declaration? Discuss how one- and two-dimensional arrays are declared and initialized. $1+2+4=7$

5. (a) What is a function? Distinguish between library function and user-defined function. Explain call by value and call by reference mechanism with examples. $1+2+4=7$

Or

(b) Write a recursion function algorithm to find a factorial of a number. Explain in detail storage classes available in C language with examples. $3+4=7$

6. (a) What are the uses of a pointer? Distinguish between pointers and arrays. How to declare and initialize a pointer? Explain with examples. $2+2+3=7$

Or

(b) What is dynamic memory allocation? Explain different dynamic memory allocation functions available in C. $2+5=7$
