

C 62596

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Name.....

Reg. No.....

SECOND SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MAY 2019

B.C.A.

BCA 2B 02—PROBLEM SOLVING USING C

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

Write short answer on all questions.

Each question carries 1 mark.

1. What is the significance of `stdio.h` ?
2. Define what is character sets.
3. Define what are the different types of constants ?
4. Explain conditional operators.
5. Define the difference between single character and string character.
6. Define the use of `getchar ()` function.
7. What would the value of X in the expression after execution : `X += 20` ? Assuming the value of X is 3.
8. What is a multidimensional array ?
9. What is recursive function ?
10. What are the invalid pointer arithmetic ?

(10 × 1 = 10 marks)

Part B

Write a paragraph on all questions.

Each question carries 2 marks.

11. Explain. What are the rules for forming an identifier in C ?
12. Explain nesting of for loop with suitable example.
13. Write a program to find average of odd digits from an integer number using while loop.
14. What is the difference between `j++` and `++j` ? Explain with example.
15. What is file ? What is its need ?

Turn over

16. What is pointer ? How it is declared and accesses in C language ?
17. Explain what are the different type conversions in expressions.
18. What is operator precedence and associativity ? Explain.

(8 × 2 = 16 marks)

Part C

*Write short essay on any six.
Each question carries 4 marks.*

19. What are various jumping statements ? Explain each.
20. Explain the different format type specifications used in input output statements.
21. How do you declare a one dimensional array ? How do you pass an array as an argument to a function using a Call by Reference method ?
22. Write a C program to find the average of non-negative from a list of numbers using continue statement and do not use array.
23. What is meant by call by value ? Explain how it is different from call by reference. Write C language program to support your answer.
24. Write a program to find sum of series $s = x + x^2 - x^4 + x^6 - x^8 \dots$ up to n series.
25. What is a character array ? Explain. Write a program to find vowels from a line of text. Not use any library functions.
26. Explain how the structure variable passed as a parameter to a function with example.
27. Explain creating a data file also opening and closing a data file with example.

(6 × 4 = 24 marks)

Part D

*Write essays on any three.
Each question carries 10 marks.*

28. (a) What are the different data types used in C ? Explain each. (6 marks)
- (b) Write C program to insert an element anywhere in the array. (4 marks)
29. (a) What are the different of operators used in C ? Explain each with example. (7 marks)
- (b) Write a program to find largest and second largest element in an array. (3 marks)
30. (a) What are structure and unions ? How a structure is created and referenced ? Illustrate. (6 marks)
- (b) Write a program to count the number of words in a given line of text: Without using library functions. (4 marks)

[3 × 10 = 30 marks]