B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2017

Second Semester

Vocational Course—PROGRAMMING LANGUAGE—I—ANSI-C

(For Vocational Subject—Computer Applications of Model II—Physics)

[2013 Admission onwards]

Time : Three Hours   Maximum Marks : 60

Part A

Answer all questions briefly.
Each question carries 1 mark.

1. What are the control instructions in C ?

2. What are the *three* constants used in C ?

3. Explain primary data types used in C ?

4. What is Disk IO Function ?

5. Which of different types of loop statement used in C ?

6. If $x = 8.8, y = 3.5, z = -5.2$, then determine value of following expression

    (a) $2 * y + 3 * (x - z)$.

    (b) $2 * x / (3 * y)$.

7. What is multidimensional array ?

8. What is call by value ?

                                                                        $(8 \times 1 = 8)$

Part B

Answer any six questions.
Each question carries 2 marks.

9. Explain different data types used in C language.

10. If $a = 8, b = 10, c = 0$, find the values of the expressions given below.

    (a) $!(a > 5 \&\& c)$.

    (b) $5 \&\& c != || !c$.

11. Explain the difference between '=' and '= =' operator explain with example.

                                                                        Turn over

12. Determine the value of each of following expression

   int $i = 8, j = j$;

   (a) $(3 * i - 2 * j) \% (2 * d - c)$.

   (b) $(i > 0) \&\& (j < 5)$.

13. Differentiate between relational and logical operators used in C ?

14. Explain logical operators and expressions used in C ?

15. Explain scanf () function with an example.

16. What is Nested if else explain with an example ?

17. Explain two dimensional array with an example.

18. What is the difference between call by value and call by reference ?

$$(6 \times 2 = 12)$$

Part C

Answer four questions.
Each carries 4 marks.

19. Write a C Program to sort an array in ascending order.

20. Write a C Program to calculate factorial of a given number using recursion.

21. Write a C Program to print equivalent hex number of given decimal number.

22. Write a C Program to find sum of $1/1 + 1/2 + 1/3 + \ldots + 1/n$.

23. Write a C language program using recursion to calculate factorial of given number.

24. Write a C Program to print square of all numbers 1 to 20 and print sum squares.

$$(4 \times 4 = 16)$$

Part D

Answer two questions briefly.
Each carries 12 marks.

25. Write a C language program to calculate the series – $1/1! + 2/2! + 3/3! + \ldots \ldots$ Up to n terms.

26. Write a C language program using recursive function to enter 4-digit number and find the sum of all digits of the number.

27. Write a C language program which will read string and count the number of characters and words in it.

28. Write a C language program to input number and find a largest digit in a given number and print it in word with appropriate message. (e.g. $n = 5273$ – "SEVEN is largest").

$$(2 \times 12 = 24)$$