FIRST SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2015

(CUCBCSS—UG)

Core Course

BCA 1B 01—PROBLEM SOLVING USING C

Time : Three Hours

Maximum : 80 Marks

Part A

*Answer **all** questions.*

Each question carries 1 mark.

1. ——— are needed to translate source code into machine code.

2. ——— is the process of finding and correcting errors in a program.

3. The escape sequence ——— represents the new line character.

4. What will be the output of the following print*f* statement ?

   print*f*("%d",10<<2);

5. ——— loop is an example of entry controlled loop.

6. ——— statement is used to return the execution control to parent function from a sub procedure.

7. Collection of characters are known as ———

8. A ——— is a named block of statements which is used to perform a specific task.

9. In the following statements assume that the initial value of p **is 3000 then what** will be the value of *p* after executing the increment statement ?

   float *p;

   p++;

10. The ——— function is used to read an integer from a file.

(10.x 1 = 10 marks)

Part B

*Answer **all** questions.*

Each question carries 2 marks.

11. What do you mean by top down design ?

12. Write short note on conditional operator.

13. Write short note on goto statement.

Turn over

14. What is the importance of bit fields in programming ?

15. What is the importance of fclose( ) function in file operations ?

(5 x 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries **4** *marks.*

16. Distinguish between interpreter and compiler.

17. Write short note on the structure of a C program.

18. What do you mean by variable ? How to declare and initialize it ?

19. Write short note on shift operators used in C.

20. What do you mean by nested if statements ? Explain with example.

21. Explain local and global variable with example.

22. Write short note on malloc( ) and calloc( ) functions.

23. What is a macro ? What are the advantages of using macro definitions in a program ?

(5 x 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 marks.

24. Explain then role of algorithms in problem solving? Write an algorithm to generate prime numbers below a given number.

25. Explain data types used in C.

26. Explain any eight binary operators used in C with example.

27. Write a C program to generate Fibonacci series.

28. Explain any four string handling functions with example.

29. Write a C program to check the given square matrix is symmetric or not.

30. Write a C program to count number of characters, words and lines in a file.

31. Explain different file modes in C.

(5 x 8 = 40 marks)