Reg. No…….. Name……

B.Sc. DEGREE END SEMESTER EXAMINATION OCTOBER/NOVEMBER 2017

SEMESTER –1: B.Sc. COMPUTER APPLICATION (CORE COURSE)

COURSE: 15U1CRCAP2: PROGRAMMING IN 'C'

(Common for Regular 2017 admission and Supplementary/Improvement 2016 & 2015 admission)

Time: Three Hours Max. Marks: 75

PART A

Answer **all** questions in one sentence each. Each question carries **1** mark.

1. An expression that combines two or more relational expressions is termed as -------- expression.
2. C an be used on
   a. Only MSDOS operating system b. Only Windows operating system
   c. Only Linux operating system d. All the above
3. What is the output of the following program segment :-

```
main()
 {
    int  m;
    for(m=1;m<5;m++)
    printf("%d ,",(m%2)  ?  m  :  m*2;
 }
```

4. Give the syntax of scanf() function?
5. What is a variable? Why is it declared?
6. Give the use of size of operator?
7. Differentiate between ++i and i++ with example.
8. What is Union?
9. An array created using malloc function at run time is referred to as ……. Array.
10. To add more data to an existing file , it must be opened in -------- mode. (1 x 10 = 10)

PART B

Answer **any eight** questions in one or two sentences. Each question carries **2** marks

11. Define Algorithm. Write an algorithm to print n numbers and its sum.
12. Explain the structure of a C program.
13. What do you meant by operator precedence? Give example.
14. Write a program to print the sum of digits of an entered number.
15. Match the following

i)	typedef	a. An exit from the innermost loop
ii)	break	b. Conditional test and increment portions
iii)	typecasting	c. Renaming an existing data type
iv)	continue	d. Explicit conversion

16. Write program to find the largest number of a given 2D array .
17. Define a structure data type ? Give an example.
18. Explain switch statement with an example.
19. What are pointers?
20. Explain different modes to open a file. (2 x 8 = 16)

PART C

Answer **any five** questions. Each carries **5** marks

21. Differentiate Top down approach and Bottom up approach in detail.
22. Discuss different loop statements in c language with examples.
23. Explain call by value and call by reference with example.
24. Write a program to find the roots of a quadratic equation.
25. Explain structure arrays? Give one example to read 5 book details.
26. Discuss Command line arguments with example.
27. Write a program to find the sum and average of given set of numbers.
28. Discuss the following :-
    a. Pointer to structures
    b. Pointer arays. (5 x 5 = 25)

PART D

Answer **any two** Questions. Each carries **12** marks

29. Briefly Explain Logic development tools- Algorithm, Flowchart and pseudo code with example.
30. Discuss different categories of user defined functions in c language.
31. What do you meant by the following terms:-
    a. Nested structures
    b. Array of structures
32. Write a program to create a file named 'Inventory' with the following details – item-no, item-name, quantity, price. Read the same file and display the details in the following format :-

Item number	Name	Amount
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---	---	---
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(12 x 2 = 24)

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