

I Semester B.C.A. Degree Examination, Nov./Dec. 2011 COMPUTER CONCEPT AND C PROGRAMMING (Repeaters)

Time: 3 Hours Max. Marks: 80

Answer any five full questions:

- I. 1) Explain the basic structure of computer with neat diagram.
 - 2) Explain the classification of printer with example for each.
 - 3) Distinguish between high level language and machine level language. (6+6+4=16)
- II. 1) What is operating system? List the four functions of operating system.
 - 2) Define the term:
 - i) Application software
- ii) System software.
- 3) What is flow chart? Draw a flow chart to find the area of triangle when three sides are given. (6+4+6=16)
- III. 1) Explain the problem solving concept.
 - 2) What is data type? List the basic data types.
 - 3) Describe the different types of operators in C.

(8+2+6=16)

- IV. 1) Explain the printf() and scanf() function with syntax and examples.
 - 2) Write a C statement for:

$$i) \frac{-b+b^2-4ac}{2a}$$

ii)
$$e^x \cos \sqrt{x-y^4}$$
.

3) Write the output of the following C program :

```
main() 

{ int x = 4, y, z; y = --x; z = x - -; printf("\n%d%d%d", x, y, z); 

}
```

P.T.O.

(8+4+4=16)

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- V. 1) Differentiate between entry controlled loop and exit controlled loop with example.
 - 2) Write a C program to find roots of quadratic equation using switch statement. (8+8=16)
- VI. 1) What is array? How do you declare array?
 - 2) Write a C program to find transpose of a matrix.
 - 3) Explain else if ladder.

(4+6+6=16)

- VII. 1) Explain string handling function.
 - 2) Discuss different categories of function.

(8+8=16)

- VIII. 1) What is structure? Write a C program which accepts list of 5 students name, roll no. and marks in 3 subject and print the same.
 - 2) What is pointer? How do you declare a pointer variable?
 - 3) Write output of the following program:

```
main()
{
    float a = 13.5;
    float *b, *c;
    b = &a;/* Assume address of a = 1006 */
    c = b;
    printf ("%u%u%u", & a, b, c);
    printf("%f%f%f", a, *(&a), *b);
}
```

(8+4+4=16)