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22131/A 310

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### I Semester B.C.A.2 Examination, October/November 2013 (Regular) COMPUTER CONCEPTS AND 'C' PROGRAMMING

Time : 3 Hours

Max. Marks : 80

Instruction: Answer the questions of all three Sections.

#### SECTION-A

- I. Answer any ten questions. Each question carries 2 marks.
  - 1) Define John Von Neuman concept of computer.
  - 2) Enumerate any two I/O devices.
  - 3) What is impact printer ? Give an example.
  - 4) Define the terms an algorithm and flowchart.
  - 5) What do you mean by identifier ? Give example.
  - 6) What is prefix and postfix increment ? Give an example.
  - 7) Convert the following expression to 'C' expression

i) 
$$z = \frac{(a+b)^2}{(a-b)^2}$$
 ii)  $y = \frac{\sqrt{a^2 + b^2}}{25}$ 

- 8) Define an Array. State its types.
- 9) Write the output of following program

```
main ( )
{
    int x = 5, y = 10, m, n;
    m = + + x;
    n = y + +;
    Printf ("% d % d % d % d % d", x, y, m, n);
}
```

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- 10) What is structure ?
- 11) What is local and global variables?
- 12) What do you mean by function ? List types of functions. (10×2=20)

#### SECTION-B

- II. Answer **any six** questions. **Each** question carries **5** marks.
  - 1) Explain briefly logical organisation of computer.
  - 2) Draw and explain various symbols used in flowchart.
  - 3) Write an algorithm to reverse the number.
  - 4) Explain else-if ladder in 'C'.
  - 5) Write a 'C' program to check whether given number is palindrome or not.
  - 6) What is an Union ? Differentiate between Union and Structure.
  - 7) What is a pointer ? Illustrate with an example declaration and initialization.
  - 8) Write a 'C' program to accept three numbers and print the largest among them using function. (6×5=30)

#### SECTION-C

- III. Answer any three questions. Each question carries 10 marks.
  - 1) What is computer generation ? Explain in detail generations of computer.
  - 2) What is string ? Explain different string handling functions with an example.
  - 3) Explain different categories of user defined functions with suitable example for each.
  - 4) Discuss different types of looping statements in 'C'
  - 5) Write a program to find roots of a quadratic equations. (3×10=30)