Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous)
Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION NOVEMBER – 2016
B.C.A. / B.Sc. I.T.

16UCACC01/16UITCC01 - Problem Solving Methodology and Programming in C

Duration of Exam – 3 hrs   *Semester – I*   *Max. Marks – 70*

Part A *(10x1= 10 marks)*

Answer **ALL** questions

1. How many bytes are occupied with one integer variable?
2. List available character set in C.
3. Which loop is known as entry controlled loop?
4. goto statement is known as jumping statement. State True or False
5. abs(-67) = _____
6. floor (3.09) = _____
7. Define : Array
8. strupr() is used to convert string in a lower case. State True or False
9. Which keyword is used to create union?
10. ____ operator is used to access a member of a structure.

Part B *(5X5 = 25 marks)*

Answer **ALL** questions

11a. Write a C program to input Principle amount, Rate of Interest and Number of years. Calculate and print Simple interest.

OR

11b. Write an algorithm to input three value and print maximum among them.

12a. Explain: while loop with an example.

OR

12b. Explain Switch case with example in brief.

13a. Briefly explain printf() and scanf().

OR

13b. Briefly explain gets() and puts().

14a. Explain with example (i) strcpy() (ii) strcmp()

OR

14b. Write short note on character array.

15a. Write a C program using struct keyword to input book_title, author, no.of pages for 3 books. Print all of them.

OR

15b. Describe array within structure.

Part C (5X7 = 35 marks)

Answer **ALL** questions

16a. What is Flowchart? Explain with all the available symbols.

OR

16b. Explain Basic structure of C program.

17a. Write a C program that accepts percentage of a student. Print the result as per following criteria:
More than or equal to 70 as Distinction
60-70 as First class
50-60 as Second class
40-50 as Pass class
Less than 40 as FAIL.

OR

17b. Explain "break" and "continue" statement with example.

18a. Create UDF named power() which accept two argument (of int type) (i) x   (ii) y and display x^y without using pow() function.

OR

18b. Explain User Defined Function in detail.

19a. Write a C program that accepts 5 integer num into an array. Copy those numbers to another array. Print both of them.

OR

19b. Explain array with example.

20a. Write a C program to creat a structure using struct keyword to input rollno, name and marks of 3 subjects of a student. Calculate total and percentage. Print output with all information.

OR

20b. Explain array of structure with example.

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