Code No. 5394 / S

FACULTIES OF ENGINEERING & TECHNOLOGY

B.E./B.Tech. (Bridge Course) I-Semester (Suppl.) Examination, December 2015

Subject : Programming in C

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions. All questions carry equal marks.

1 a) Explain the functions of each unit of digital computer with neat diagram.
b) Write an algorithm to find the product of all digits and reverse of a given number 'n'.

OR

c) Draw a flowchart for finding the roots of quadratic equation for all conditions.
d) Write an algorithm find the sum of all prime numbers less than 'n'.

2 a) One Apple contains about 225 calories. A person burns up 100 calories by running a mile. Write an algorithm which asks a person to type in the number of apples he/she wants to eat and displays the number of miles he/she should run to burn up the calories.
b) Describe the preprocessor commands with example.

OR

c) Explain the different ways of reading string in C.
d) List the different data types the variables can be declared in C.

3 a) Write a C-program to find the second maximum number among 'n' numbers.
b) Write a program to multiply two integers without using '$*$'.

OR

c) Explain with an example the use of Switch case statement. What is the constraint on labels for the case statement.
d) List all the operators and its order of precedence.

4 a) Differentiate between call by value and call by reference giving suitable example.
b) Write a C program to remove the duplicate character existing in the given string. By keeping only once the character in the string.

OR

c) What are storage classes? Write the scope and lifetime of each storage class variable.
d) Write a program to find the average of positive numbers, average of negative numbers stored in an array of 'n' numbers.

5 a) Write a C function that returns roll_no having highest marks. Imagine that the following details of the students are available {roll-No, name, marks} and the main program reads all the data and print the student information with highest marks and all student information who passed in the exam.
b) Write a program that accepts the source and destination filenames and copy the file content from source to destination.

OR

c) What are the various operations performed on pointers? Explain with example.
d) Write a program that accepts the filename containing student information like rollno, name and marks in the order and print the name of the student who got highest marks.

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