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B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013
COMMON TO ALL BRANCHES
First Semester
GE 8151 - COMPUTING TECHNIQUES
(Regulations 2012)

29

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

Calculators are not allowed PART- A (10 × 2 = 20 Marks)

1. What are the major components of a general purpose computer?
2. Write any two reasons for using binary number system in computers.
3. What will be the output of the following program?

```
#include<stdio.h>
main()
{
int i=1;
i=2+2*i++;
printf("%d",i);
}
```

4. Can "-" (minus) operator be termed as a unary operator(Yes/No)? Justify.
5. What is the output of the following program segment ?

```
int a[9]={8,5,7,9,4,2,1,4,6};
printf("\n%d",a[a[5]]);
```
6. What is the difference between the string inputs using %c and %s in "scanf" statement?
7. Write an example for infinite **for** loop.
8. Why is **break** statement used in switch-case statement ?
9. What is pre-processor directive?
10. Write any two uses of functions.

PART – B (5 × 16 = 80 Marks)

11. i) Find W, X, Y and Z in the following : (8)

$$\begin{aligned}(238.75)_{10} &= (W)_2 = (X)_{16} \\ (-42)_{10} &= (Y)_2 \\ (1100101.11)_2 &= (Z)_{10}\end{aligned}$$

- ii) Write an algorithm or draw a flow chart to check whether a given integer value is prime number or not. (8)

12. a) i) List the basic data types in C. How the modifiers, such as, short, long & double are associated with each data type? Explain each with examples for input & output. (10)

- ii) Write the difference between dual & singleton operators (==, &&, ||) with example for each. (6)

(OR)

13. a) i) Write an algorithm or draw a flow chart to check whether the roots of a quadratic equation are equal or complex or real, for the given three coordinates. (10)
- ii) What is pseudocode ? Give an example. (6)

(OR)

- b) i) Describe the edit, table and font features available in document writer to enhance the quality of document typing. (10)
- ii) What are the steps involved to draw a chart or bar graph in spreadsheet? (6)

14. a) Explain the operators, "+, *, %, ++, --, &&, &&=" of a C program, with associated data types. Give example for each. (16)

(OR)

- b) i) What is looping ? Explain it by writing a C program, to find the factorial of a given integer value. (8)
- ii) Write a C program to check whether a given number is prime number or not. (8)

15. a) Write a C program to get the integer values for two matrices. Perform, addition and multiplication and display the resultant matrix. (16)

(OR)

- b) i) What is string ? How to input and output string values ? Explain with example. (10)
- ii) Write any two predefined functions with example. (6)
