Reg. No.

Question Paper Code : **57408**

B.E/B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

First Semester

Civil Engineering

GE 6151 – COMPUTER PROGRAMMING

(Common to all branches)

(Regulations 2013)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. Classify the computers based on performance, size, cost and capacity.

2. Convert the binary number 10110111.1101 into decimal number.

3. What are variables ? Give examples.

4. Define implicit type conversion.

5. What is an array ?

6. Define string. Give examples.

7. Specify the advantages of functions.

8. How is pointer arithmetic done ?

9. What do you mean by structures ?

10. State the importance of union.

PART – B (5 × 16 = 80 Marks)

11. (a) (i) Describe the basic computer organization with neat diagram. **(10)**

      (ii) Draw the flowchart to solve the quadratic equation. **(6)**

OR

(b) (i) Explain the various generations of computers. **(8)**

      (ii) What is pseudo code ? Explain its guidelines and benefits. **(8)**

12. (a) (i) Explain the different types of operators available in C. **(10)**

      (ii) Discuss the basic data types in C. **(6)**

OR

(b) (i) Describe the various input and output statements in C with suitable examples. **(10)**

      (ii) Write a C program for the following series : **(6)**

$$1 + 2 + 3 + 4 + \text{.............} + n$$

13. (a) (i) Write a C program to count the number of vowels in your name. **(6)**

      (ii) Write a C program to multiply two matrices. **(10)**

OR

(b) (i) Write a C program to check whether the given string is palindrome or not. **(6)**

      (ii) Write a C program to arrange the given 10 numbers in descending order. **(10)**

14. (a) (i) Write a C program to find the smallest and largest number from the given 10 numbers using functions. **(10)**

      (ii) Explain the pass by reference with an example. **(6)**

OR

(b) (i) Write a C program to find the factorial of a given number using recursion. **(8)**

      (ii) Write a C program to count the number of words in a string using pointers. **(8)**

     57408

15. (a) Define a structure called student would contain name, register number and marks of five-subjects and percentage. Write a program to read the details of name, register number and marks of five subjects for 25 students, calculate the percentage and display the name, register number, marks of 25 subjects, percentage of all the students and also the name of the student who got highest percentage among the 25 students. (16)

OR

(b) (i) Explain the various storage classes in C. (8)

(ii) Describe about the preprocessors with suitable example. (8)

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