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Question Paper Code : 41177

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

First Semester

Civil Engineering

CSE - II

GE 6151 – COMPUTER PROGRAMMING

(Common to All Branches Except Marine Engineering)

(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. Convert 1589 to binary.
2. Present the difference(s) between algorithm and pseudo-code.
3. Give the structure of a C program.
4. Write a C program to swap the values stored in two integer variables.
5. What are the advantages of using arrays ?
6. Write an algorithm to search an element in an array.
7. What is meant by recursion ? Give an example.
8. How is a pointer variable initialized ?
9. State the need for structured data type in C.
10. What are preprocessor directives ? Give examples.

PART – B

(5×16=80 Marks)

11. a) i) Explain the advancements of computers in different generations. (8)
ii) Write a pseudocode to calculate the roots of a quadratic equation. (8)
- (OR)
- b) i) List and explain the classification of computers. (8)
ii) State the need for flowcharts. Draw a flowchart reflecting the steps to check if a number is prime or not (8)



12. a) i) Explain the data types supported by C language with suitable examples. (8)
- ii) Write a C program to design a calculator to perform addition, subtraction, multiplication and division. (8)
- (OR)
- b) i) Explain the different looping constructs in C. (8)
- ii) Write a C program to reverse the digits of a number. (8)
13. a) i) Write a C program to remove the duplicate numbers present in an array and display the remaining numbers. (8)
- ii) Explain the purpose of any four string functions. (8)
- (OR)
- b) i) Write a C program to sort ten integers in ascending order without using any inbuilt functions. (8)
- ii) Write a C program to add two matrices. (8)
14. a) State the need for user define functions. Explain call by value and call by reference methods using examples. (16)
- (OR)
- b) i) Explain the relation between arrays and pointers with examples. (8)
- ii) Write a program to count the vowels and consonants in a string using pointers. (8)
15. a) Explain the basic structures and nested structures with suitable examples. (16)
- (OR)
- b) Explain, with examples, the different types of storage classes in C. (16)