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Question Paper Code : 31466

B.E./B.Tech. DEGREE EXAMINATION, JANUARY 2014.

First Semester

Civil Engineering

GE 2112/CS 16/080230001 — FUNDAMENTALS OF COMPUTING AND PROGRAMMING

(Common to all Branches)

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   List out the characteristics of a computer.

2.   Distinguish between Analog and Digital computer.

3.   Differentiate between hardware and software.

4.   Distinguish between compiler and interpreter.

5.   What is an algorithm?

6.   Give the importance of a graphic packages.

7.   What are the main feature and applications of C language?

8.   Write a code segment using while statement to print numbers from 10 down to 1.

9.   What is the need for user defined functions?

10. What are the advantages of unions over structures?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the following:

    (i)   Organization of a computer   (4)

    (ii) Input unit   (4)

    (iii) Central processing unit   (4)

    (iv) Output unit.   (4)

Or

    (b) Explain the different components of a computer system with a block
        diagram.   (16)

12. (a) (i) What is system software? Explain various system software in
             detail.   (8)

        (ii) Briefly explain the steps in software development.   (8)

Or

    (b) (i) What is an internet? Explain its evolution and its services. (8)

        (ii) Explain how internet connection can be established.   (8)

13. (a) (i) What is pseudo code? Explain how it can be designed and its
             benefits and limitations.   (8)

        (ii) Briefly discuss about word processor and spread sheets.   (8)

Or

    (b) Explain sequence logic, selection logic and iteration logic design structure
        in pseudocode.   (5 + 5 + 6 = 16)

14. (a) What is the basic structure of C program? Explain with example
        unformatted Input and output statements in C language.   (4 + 12 = 16)

Or

    (b) (i) What are the different operators available in C? Explain with
             examples.   (8)

        (ii) Differentiate between signed and unsigned integer.   (8)

15. (a) (i) Write a C program to reverse a given string. (8)

       (ii) Differentiate pass by value and pass by address in C. (8)

<div align="center">Or</div>

  (b) Explain the following with an example program:

       (i) Declaring a structure (5)

       (ii) Pointer to multi-dimensional array (6)

       (iii) Union. (5)

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