Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 10371

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2012.

First Semester

(Common to all branches)

GE 2112/185102/CS 16/080230001 – FUNDAMENTALS OF COMPUTING AND PROGRAMMING

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — ($10 \times 2 = 20$ marks)

1. List the factors needed to classify computers.
2. Write first ten numbers in radix 4 number system.
3. Define software and hardware.
4. What is a web server?
5. What is an algorithm?
6. What are flowcharts and list down their advantages?
7. What do you mean by 'C' Tokens?
8. What does the following fragment print?

```
for (int i = 0;i < 10;i + +)
{
    if (!(i%2)) continue;
    printf ("%d\t", i);
}
```

9. What do you mean by a pointer? Mention its uses.
10. Distinguish between Library function and User Defined function.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Give the different generation of languages in the evolution of computer – software. (8)

(ii) What are octal numbers? Write down the algorithm to convert a decimal number to an octal number and convert the decimal number 399 to its octal equivalent. (8)

Or

(b) (i) What is volatile memory? Explain the different types of volatile memory. (8)

(ii) How computers can be classified? Explain. (8)

12. (a) (i) Explain in detail the types of computer software. (8)

(ii) Explain in detail the various steps involved in Software Development. (8)

Or

(b) (i) Explain the common types of internet access. (6)

(ii) Write short notes on web browser. (5)

(iii) Explain a typical structure of URL. (5)

13. (a) (i) Explain guidelines for preparing flowcharts, benefits and limitation of flowcharts. (8)

(ii) Write an algorithm for finding sum and average of n numbers. Also state the properties of a good algorithm. (8)

Or

(b) What is pseudo code? How does it differ from flowchart? Write a pseudo code to add up all the even numbers between 0 and 100 and print the result. (16)

14. (a) (i) What are the different operators available in C? Explain with examples. (12)

(ii) Differentiate between signed and unsigned integer. (4)

Or

(b) (i) Write a C program that reads a character and displays only the vowels using switch case structure. (8)

(ii) Write a C program that displays a pyramid structure using numbers. (8)

15. (a) Explain, with examples, the different types of storage classes in C. (16)

Or

(b) Write function using pointers to add two matrices and to return the resultant matrix to the calling function. (16)