

Roll No. ....

EB-100

**B. E. (First Semester) (CGPA)  
EXAMINATION, 2011-12**

(Civil Engg. Branch)

**FUNDAMENTALS OF COMPUTER PROGRAMMING**

(CE--105)

Time : Three Hours

Maximum Marks : 60

Note : Attempt all questions.

1. Write short notes on the following : 2 each
- (a) Array of structures
  - (b) System software
  - (c) fgets and fputs
  - (d) recursion
  - (e) enumerated data type

**Unit - I**

2. (a) How are computers classified based on their size and functionality? 5
- (b) Explain the general organization of computer with the help of a neat diagram. 5

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Or

- (a) Describe the different generation of computers stating disadvantages of each. 5
- (b) Classify the different types of memory associated with a computer. 5

**Unit - II**

3. (a) List the various <sup>services</sup> offered by operating systems. 5
- (b) Explain the use of the following UNIX commands :  
tty, wc, pad, cd, mkdir. 5

Or

- (a) Describe the characteristics of UNIX operating system. 5
- (b) Explain the different modes in which vi editor works. 5

**Unit - III**

4. (a) Design an algorithm to generate all the primes in the first  $n$  positive integers. 5
- (b) What are the different data types available in C? 5

Or

- (a) Write a program to find the sum of odd and even numbers between 1 and 100. 5
- (b) Describe the features of structured programming. 5

**Unit - IV**

5. (a) What are preprocessor directives? Name the different categories of preprocessor directives. 5
- (b) Using recursion, write a C program to find the  $n$ th Fibonacci number. 5

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Or

- (a) What is an array ? Differentiate between array and structures ? 5
- (b) What are the various parameter passing mechanisms ? Explain them briefly. 5

Unit - V

6. A file of employees contains data (eno, name and salary) for each employee of a company. Write a program to do the following : 10
- (i) create the file
  - (ii) insertion in the file
  - (iii) deletion of a particular record from the file
  - (iv) modification to a particular record in the file

Or

- (a) Explain the following functions with a suitable example : 5
  - (i) printf()
  - (ii) fflush()
- (b) What is a Pointer and how it is initialised ? How does pointer help in dynamic memory allocation ? 5