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

P. T. O.

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 service 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 nth Fibonacci number. 5

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) fprintf()

(ii) ftell()

(b) What is a Pointer and how it is initialised ? How does pointer help in dynamic memory allocation ? 5