Hall Ticket No | | | | | | | | | | |

Question Paper Code: ACS001

MODEL QUESTION PAPER – I

Four Year B.Tech I Semester End Examinations, December – 2016

Regulation: R16

COMPUTER PROGRAMMING

(Common to CSE, ECE, EEE and IT)

Time: 3 Hours **Max Marks: 70**

Answer any ONE question from each Unit
All questions carry equal marks
All parts of the question must be answered in one place only

Unit – I

1. (a) Explain various computing environments with neat diagrams. [5M]
   (b) Explain various types of bitwise operators used in C language. [4M]
   (c) Write an algorithm and program to find the average of even numbers between 1 and n. [5M]
2. (a) Explain the functional units of computer? [5M]
   (b) Write an algorithm and draw flowchart for finding greatest among three given numbers. [5M]
   (c) Write short notes on software. [4M]

Unit – II

3. (a) Write a C Program to generate all perfect numbers between 1 and n, where n value is supplied by the user. [5M]
   (b) Write a C program to print biggest of three numbers. [5M]
   (c) Write a C program to copy one string to another string without using string functions. [4M]
4. (a) Explain the syntax of switch statement. [5M]
   (b) Write C Program to read two matrices and find multiplication of two matrices. [5M]
   (c) Write a C program to sort the given array elements in ascending order. [4M]

Unit – III

5. (a) List out the different types of storage classes with valid example? [5M]
   (b) Explain different types of preprocessor directives? [5M]
   (c) Write a C program to illustrate the use of array of pointers. [4M]
6. (a) Write a C Program to that uses both the recursive and non-recursive functions to generate the Fibonacci series numbers below 1000. [5M]
   (b) Explain parameter passing mechanism's with example. [5M]
   (c) List out the advantages of using pointers and explain generic (void) pointers with suitable example. [4M]

Unit – IV

7. (a) Differentiate between a structure and union? [5M]
   (b) Write the usage of the following [4M]
      i. Bit fields
      ii. Enumerated types
   (c) Write a program to declare pointer to a structure and display the contents of the structure. Define a structure object of book with three fields: title, author and pages [5M]
8. (a) Explain the following with suitable examples. [5M]
      i. typedef
      ii. Self referential structures
   (b) Explain dynamic memory allocation. [4M]
   (c) Write a C program to read two complex numbers and perform the following: [5M]
      i. Addition of two complex numbers
      ii. Subtraction of two complex numbers

Unit – V

9. (a) Describe types of files with an example. [7M]
   (b) Write a C program to replace every 5th character of the data file, using fseek( ) command. [7M]
10. (a) Write the syntax for opening a file with various modes and closing a file. [7M]
   (b) Explain about file handling functions. [7M] [7M]