Roll No. | | | | | | | |

TCS–201

B. Tech. (Second Semester)
Mid Semester EXAMINATION, 2016
(All Branches)
PROGRAMMING IN C

Time : Two Hours] [*Maximum Marks : 60*

Note : (i) This question paper contains *three* questions with alternative choice.

(ii) All questions are compulsory.

(iii) Each question carries four Parts (a), (b), (c) and (d). Attempt either Parts (a) and (b) or (c) and (d) of each question.

(iv) Each Part carries **ten** marks. Total marks assigned to each question are **twenty**.

1. (a) What is an array ? Explain any *three* disadvantages of an array with example. 10

(b) Write a program to enter n numbers in an array and then find sum of all numbers which are at odd indices. 10

Or

(c) What is an array ? Explain any *two* advantages of an array with example. Also show how we initialize a 2D array. 10

(d) Draw a flowchart to input n numbers in an array and then calculate sum of all even numbers in that array. 10

2. (a) Write down an algorithm to input n numbers in an array and then print all those elements which are multiple of 4. 10

(b) Write a program to input a square matrix and calculate sum of both diagonals. 10

Or

(c) Draw a flowchart to input a matrix of order N × M and replace each elements with its square, also print the resultant matrix. 10

(d) Write a program to input two matrices. Calculate their multiplication and print the final matrix. Also apply proper validation and print it. 10

3. (a) Define function and also explain function declaration, calling and definition with an examplenumber should pass as an argument and result should print in main function. 10

(b) Explain row major and column major representation of 2-D array with diagram A 2-D array ar[– 10 ..... 10] [4 ..... 20] requires 2 bytes of memory to store element and base address is 500 than calculate the address of a [3][5] (array is row major implemented).

Or

(c) Write advantages of function in C. Explain actual and formal parameter with an example. 10

(d) Write a program to calculate a^b using function (without using pow( ) function). 10