

Code: 13A12101

B.Tech I Year (R13) Supplementary Examinations June 2016

**PROGRAMMING IN C & DATA STRUCTURES**

(Common to CE, ME, EEE, ECE, EIE and IT)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Write about structure of C program?
  - (b) Draw flowchart to find whether the sum of 2 numbers is odd or even.
  - (c) Write a note on difference between break and continue statements.
  - (d) Write the difference between while and do-while statements.
  - (e) Write four types of storage classes.
  - (f) What is binary search?
  - (g) Write the disadvantage of pointers.
  - (h) Write operations on files.
  - (i) Write difference between structure and union.
  - (j) What is circular queue?

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT - I**

- 2 What is operator? Explain different operators with examples.

**OR**

- 3 Write about built-in, derived, user-defined and void data types.

**UNIT - II**

- 4 Write about categories of functions with examples.

**OR**

- 5 Write a C program to find the *greatest* of given 3 numbers using else – if ladder.

**UNIT - III**

- 6 Write about string manipulations functions available in C with examples.

**OR**

- 7 What is 2D array? Write program for addition of 2 matrices.

**UNIT - IV**

- 8 Explain structure declaration in C. How we can use different Ways of declaring Structure using Typedef?

**OR**

- 9 Write about dynamic memory management functions in C.

**UNIT - V**

- 10 Define stacks and explain stack implementation concepts using arrays.

**OR**

- 11 Write a suitable program to implement Single linked list.

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