

Code: 9A05101

B.Tech I Year (R09) Supplementary Examinations June/July 2014

**PROGRAMMING IN C & DATA STRUCTURES**

(Common to all branches)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 Explain about program control structures with suitable examples.
- 2 With examples explain different decision statements in C.
- 3 What is an array? What are the advantages of arrays over ordinary variables? How arrays are declared and initialized?
- 4 (a) Write a program using pointers to read in an array of integers and prints its elements in reverse order.  
(b) Write a function to convert lower case to upper case and vice-versa.
- 5 (a) How to use arrays as structure members? Illustrate with example.  
(b) How to use indirection notation and selection notation to access the members of structure with an example?
- 6 Explain the following with example:  
(a) Sequential files.  
(b) Random access files.
- 7 Explain stack algorithms with example.
- 8 (a) Prove that the binary search is quicker than linear search with example.  
(b) Discuss the working principle of tree sort.

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