



paper-I

SRI VENKATESWAR UNIVERSITY :: TIRUPATI
DIRECTORATE OF DISTANCE EDUCATION
DEPARTMENT OF COMPUTER SCIENCE
M.Sc. COMPUTER SCIENCE – I YEAR INTERNAL TEST QUESTION PAPER

Subject: Discrete Mathematics

Max Marks: 20

Part – A

2 x 5 = 10 Marks

Answer any TWO questions from the following^f

1. Explain Converse, Contapositive and Inverse
2. How many reflexive relations are there on a set with 'n' elements?
3. Explain Applications of Congruences?
4. What is Pigeon-hole Principle?

Part – B

1 x 10 = 10 Marks

Answer any ONE question from the following

1. Explain Propositional equivalences with examples?
- 2(a). Use Mathematical Induction Prove the inequality $n < 2^n$ for all Positive integers n.
- (b). Use Mathematical Induction to Show that if S is a finite set with n elements, then S has 2^n Subsets.



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Subject :Computer Organization

Max Marks : 20

Part – A

2 x 5 = 10 Marks

Answer any TWO questions from the following

1. Discuss about Functional Unit
2. Explain about Pipelining Basic concepts.
3. Discuss about Integer Division
4. Explain about Direct Memory Access

Part – B

1 x 10 = 10 Marks

Answer any ONE questions from the following

1. Explain about Addressing Modes
2. Write about Accessing I/O devices



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Subject :Data Structure and C
Marks : 20

Max

Part – A

2 x 5 = 10 Marks

Answer any TWO questions from the following

1. Define the following with an example
 - a. TREE
 - b. BINARY TREE
 - c. BINARY SEARCH TREE
 - d. HEAP TREE
 - e. GRAPH

2. Evaluate the following expression into postfix form using stacks
 $(A+B)*C-(D-E)/(F+G)$

3. Define the following with an Example:
 - a. Simple Graph
 - b. Cyclic Graph
 - c. Weighted Graph
 - d. Degree of Vertex
 - e. Complete Graph

4. Discuss about different Representation of Graph, given on Example.

Part – B

1 x 10 = 10 Marks

Answer any ONE questions from the following :

1. Explain about Insertion and deletion of a node in an Binary tree? With example

2. What is Graph Traversal? Discuss about DFS?