

2054

**B.E. (Computer Science and Engineering)  
Second Semester**

**CSC-202: Introduction to Computer Science**

Time allowed: 3 Hours

Max. Marks: 50

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.

x-x-x

Q-1	a) Which 7 layers are used in Network for communication? b) Explain HTTP. c) What is data structure? What is linear and non linear data structure? d) What is Difference between TCP and UDP ? e) What is Spiral or incremental model in software development process?	2X5
<b>SECTION-A</b>		
Q-2	a) Define Link list? Write an algorithm to (a) Insert node in middle. (b) Delete node from end in a list . b) Explain the Internal structure of CPU with all registers	5,5
Q-3	a) Draw diagram of Memory Hierarchy. What is virtual Memory and concept on which it is based? b) What is Network Topology? Explain its types?	5,5
Q-4	a) File Characteristics : Fixed Length Records Cylinder=set of tracks on a disk No. of Records=50,000 records Size of record=256 bytes Disk Characteristics: No of Bytes per Sector=512, No. of Sectors per track=63 No. of tracks per cylinder=16 Find i) No of records per cylinder. ii) No. of cylinders or recording surfaces to store complete file. b) What technologies were used in 3rd generation of computers.	5,5
<b>SECTION-B</b>		
Q-5	a) What is traversal of a tree? Draw a binary tree with 12 nodes (A-L) .Explain Preorder, Inorder and Postorder of this tree.. b) Explain message passing from sender to receiver node at all 7 layers.	5,5
Q-6	a) What is RDBMS? Explain Project and join operation of SQL with example. b) Define Analysis phase of Software engineering process and Tools used in procedure oriented analysis with examples.	5,5
Q-7	a) Write an algorithm to convert decimal to binary and store it in array. Draw flowchart also. b) What is ROM? Compare ROM, PROM, EPROM.	5,5

x-x-x