St. Thomas' College of Engineering & Technology

B. Tech. 7th Semester, 1st Internal Examination, Jan 2021
Distributed Operating System (CS704A)

Full Marks : 25   **Time : 50 Min.**

Group-A

Choose the correct option   1×5

1.i) The network layer is mainly responsible for
a) recovering from transmission errors and for flow control
b) hide all the details of the communication network from the layers above
c) routing and congestion control
d) establishing and maintaining a connection between two processes

ii) Which protocol is used to control access to the bus
a) the token ring protocol   b) the CSMA/CD protocol
c) the slotted ring protocol   d) none of these

iii) RPC is an abbreviation of
a) Remote Process Call   b) Random Procedure Call
c) Remote Procedure Call   d) Random Process Call

iv) Chandy-Lamport's algorithm records
a) local state   b) transit state   c) global state   d) none of these

v) System throughput is equals to
a) $(sd+1/E)^{-1}$ b) $(sd+E)^{-1}$ c) $(sd-E)^{-2}$ d) $(E+1/sd)^{-2}$
where sd = synchronization delay time & E = avg. critical section execution time

Group-B

2. Briefly describe the three broad categories classified in distributed systems by Tanenbaum
and Renesse.   5
3. Explain the limitation of Lamport's Clock using suitable space-time diagram.
                                                                                                5

Group-C

4. Describe the designing issues in Distributed Operating system.   10