Sanjay Ghodawat University, Kolhapur

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

2020-21

EXM/P/09/00

Year and Program: 2020-21 B. Tech. Computer Science & Engg.	**School of Technology**	**Department: Computer Science & Engg.**
Course Code:CST401	**Course Title: Distributed and Parallel Computing**	**Semester : VII**
Day : Tuesday **Date : 15 Dec. 2020**	**End Semester Examination**	**Time : 2 Hrs.** **11 am to 1 pm.** **Max Marks : 50**

Instructions: 1) All Questions are compulsory.
2) Draw neat diagrams wherever necessary.

		Marks	Bloom's Level	CO
Q.1	**Answer the following (Any two)**			
a)	Explain the differences between cluster computing and grid computing. Draw neat diagrams to justify the answer.	8	L3	CO1
b)	Discuss the importance of virtualization in distributed systems.	8	L4	CO2
c)	Describe the phases involved in a remote computation through RPC.	8	L3	CO3
Q.2	**Answer the following (Any two)**			
a)	Explain steps involved in Message-Oriented Transient Communication and Message-Oriented Persistent Communication between client and server.	8	L3	CO1
b)	Discuss the issues to be addressed in designing a server.	8	L3	CO2
c)	Describe system architecture for streaming stored multimedia data from server to client.	8	L2	CO3
Q.3	**Answer the following (Any two)**			
a)	Describe Parallel Computer Memory Architectures. Discuss advantages and disadvantages of each.	9	L4	CO4
b)	Discuss the distributed mutual exclusion algorithm suggested by Ricart and Agrawala.	9	L4	CO2
c)	What is the importance of message passing interface? Describe important message-passing primitives of MPI.	9	L3	CO4