Seat No.:	Enrolment No.
ocut 110	Emoment 110.

Subject Code: 180701

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER - VIII.EXAMINATION - WINTER 2016

Date: 21/10/2016

	Time:	ct Name: Distributed Systems 02:30 PM to 05:00 PM Total Marks: 70	
	Instruc	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	Define distributed system. What is main motivation of distributed system? Explain advantages and disadvantages of distributed systems.	07
	(b)	[1] Compare: Monolithic kernel and Microkernel [2] Compare: Network Operating System and Distributed Operating System	07
Q.2	(a)	Listout various distributed computing model. Explain workstation server model and processor pool model.	07
	(b)	Draw and explain ATM cell format. OR	07
	(b)	Explain versatile message transport protocol.	07
Q.3	(a)	What is an IPC? Explain IPC message format. Also listout issues to be consider for the design of IPC protocol based message passing system.	07
	(b)	Explain construction a DFS spanning tree for a specified root. OR	07
Q.3	(a) (b)	Explain algorithm for constructing DFS spanning tree without a specified root. Draw and explain general RMI architecture. Also write advantages of RMI.	07 07
Q.4	(a)	What is deadlock? List out four necessary and sufficient conditions for a deadlock occur. Explain various deadlock preventions strategies.	07
	(b)	How problem is specified using formal model? Explain asynchronous point to point message passing and asynchronous broadcast. OR	07
Q.4	(a)	What is physical clock? What is logical clock? Explain how to implement logical clock in distributed system?	07
	(b)	How object locating is carried out in distributed system? Discuss different object locating mechanisms.	07
Q.5	(a) (b)	Explain name space and name server. Which are the different types of process scheduling techniques? Explain desirable features for good scheduling algorithm. OR	07 07
Q.5	(a) (b)	What is thread? Compare user level thread with kernel level thread. What is coherence protocol? Explain how the MRMW protocol is implemented.	07 07
