| Sec | at No.: | Enrolment No | |
|----------|---------------------------------------|---|----------|
| Su Ti | bject me: 0 structi 1. 2. | GUJARAT TECHNOLOGICAL UNIVERSITY M. E SEMESTER – I • EXAMINATION – SUMMER • 2014 code: 715102 Date: 17-06-2014 Name: Advanced Operating System and Management 2:30 pm - 05:00 pm Total Marks: 70 ons: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full mark. | |
| Q.1 | (a) | Define local resources and remote resources. Draw the architecture of distributed operating systems | 07 |
| | (b) | How to represent casually related events and concurrent events in lamportøs logical clocks. Write the implementation rules(IR) of lamportøs logical clock. | 07 |
| Q.2 | (a) | Define strongly consistent global state. Write the requirements of distributed mutual exclusion. | 07 |
| | (b) | Analyze the performance lamportos algorithm for distributed mutual exclusion. OR | 07 |
| | (b) | Analyze the performance Ricart-Agrawala algorithm for distributed mutual exclusion. | 07 |
| Q.3 | (a) | Write on resource deadlocks and communication deadlocks. Explain why deadlock prevention cannot be used in distributed operating systems. | 07 |
| | (b) | Explain Distributed Deadlock Control. Write Ho-Rammoorthys 2-Phase Centralized algorithm for Distributed Deadlock. OR | 07 |
| Q.3 | (a) (b) | Explain the working of Diffusion Computation Distributed algorithm for Deadlock Write on Deadlock Resolution | 07 07 |
| Q.4 | (a) | Explain Byzantine Agreement Problem. Explain 2 applications of Agreement Protocol. | 07 |
| | (b) | Write on Mechanisms for building Distributed File System. Write on NFS. OR | 07 |
| Q.4 | (a) | Write the advantages of Distributed Shared Memory. Write on Granularity for Distributed Shared Memory. | 07 |
| | (b) | Explain the 3 components of Access Matrix Model. Why Microsoft Windows gives an opinion that it is not secure. | 07 |
| Q.5 | (a) (b) | Define System Configuration. What are the reasons for using NAT. Write on issues of Systems Management | 07 07 |
| Q.5 | (a) | OR Explain the Design issues of Distributed Operating System | 07 |
| | (b) | Write Chandy-Lamports algorithm for collection of Global State | 07 |
