6M

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Code No: I6809/R16

M. Tech. I Semester Regular Examinations, January-2017

ADVANCED OPERATING SYSTEMS

[Common to VLSI&ES (68), ES&VLSI (48), VLSID &ES (77), ES &VLSID (81), VLSI (57), VLSID (72), VLSI System Design (61), VLSI & Micro Electronics (76) and Embedded Systems (55)]

Time: 3 Hours Max. Marks: 60

Answer any FIVE Questions All Questions Carry Equal Marks

- a What do you mean by instruction cycle, fetch cycle and execution cycle-explain with 6M an example.
 b What do you mean by open source operating systems and explain about various open 6M source operating sytems.
 a Explain with an example about the implementation of input redirection and output 6M redirection
 - b Explain the following UNIX commands with an example:i. gimp
 - ii. alias
 - iii. mv
- 3. a What do you mean by a system call and list the various file structure and process 6M related system calls.
 - b What do you mean by file locking & record locking and explain with an example 6M about their implementation.
- 4. a What is the difference between a distributed system and a centralized system and 6M explain the design issues of a distributed system.
 - b Explain about ATM networks by illustrating the communication in distributed 6M systems.
- 5. a List the steps in I/O communication and differentiate between Programmed I/O and 6M Interrupt driven I/O.
 - b What is the necessity of clock synchronization and explain about the Berkeley 6M algorithm.
- 6. a What do you mean by shared memory and explain the role of semaphore's with 6M respect to shared memory with an example.
 - b Give the difference between the logical clock & physical clock and explain about the 6M Lamport's algorithm.

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7.	a	Explain about RPC and group communication in distributed systems.	6M
	b	Explain about the objectives and functions of an operating system.	6M

- 8. a Why do we need election algorithms and explain with an about the bully algorithm. 6M
 - b Write short notes on the following:

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- Pipe's i.
- ii. FIFO's
- iii. Message queue's.

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