Code No: MC1622/R16

MCA II Semester Regular Examinations, May-2017
OPERATING SYSTEMS

Time: 3 Hours   **Max. Marks: 60**

Answer Any FIVE Questions
All Questions Carry Equal Marks

1.	a	List the operating system responsibilities in connection, with a process management and memory management.	8m
	b	What is a system call? How it assist in operating system services.	4m
2.	a	Define a virtual machine. With a neat diagram, explain the working of a virtual machine.	6m
	b	Discuss three common ways of establishing relationship between user thread and kernel thread.	6m
3.	a	What are semaphores? Explain the solution to producer-consumer problem using semaphores.	6m
	b	How the communication is established in a client-server environment? Explain.	6m
4.		Given the page referencing string: 0 9 0 1 8 1 8 7 8 7 1 2 8 2 7 8 2 3 8 3 Three frames allocated for the program in the main memory. Determine the number of page faults using i) LRU ii) Optimal replacement	12m
5.	a	Explain various levels in RAID structure.	6m
	b	What is dynamic storage allocation problem? How can it be simplified?	6m
6.		What are the major methods for allocating a disk space? Explain each with suitable examples.	12m
7.		What are different method for handling deadlocks? Explain Banker's algorithm	12m
8.		Describe various methods in cryptography used for providing security of systems.	12m

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