Question Bank

UNIT 1

1. Explain fundamental difference between i) N/w OS and distributed OS ii) web based and embedded computing. **Jun 15/Jun14**
2. What do you mean by cooperating process? Describe its four advantages**. Jun 14/Jun 15**
3. What are different categories of system programs? Explain. **Jun 14/Jan 15**
4. Define OS. Discuss its role from different perspectives. **Jan16/Jun 14**
5. List different services of OS. Explain. **Jun15/jun16**
6. Explain the concept of virtual machines. Bring out its advantages. **Jul 15/Jun 13/Jun16**
7. Distinguish among following terminologies: Multiprogramming systems, multitasking systems, multiprocessor systems**. Jun 14/Jan 15**
8. What is distributed operating system? What are the advantages of distributed operating system?**Jun15/Jan 16**
9. What are system calls? With examples explain different categories of system call?

Jan 15/Jun 15

UNIT 2

1. What do you mean by PCB? Where is it used? What are its contents? Explain. **Jun 16/Jun 14**
2. Explain direct and indirect communications of message passing systems. **Jun 14/ Jan 15**
3. Explain the difference between long term and short term and medium term schedulers **Jan16/jun16**
4. What is process? Draw and explain process state diagram. **Jan 15/Jun15**
5. Define IPC.What are different methods used for logical implementations of message passing systems. **Jun 14/ Jan 15**
6. Discuss common ways of establishing relationship between user and kernel thread **Jan 16.**
7. Explain multithreading models. **Jun 15/jun16**

UNIT 3

1. What are semaphores? Explain two primitive semaphore operations. What are its advantages? **Jun 15/jan16**

2. Explain any one synchronization problem for testing newly proposed sync scheme. **Jun 14/jun16**

3. Explain three requirements that a solution to critical–section problem must satisfy .**Jun 15/ Jun 16**

4. State dining philosopher's problem and give a solution using semaphores. Write structure of philosopher. **Jun 15**

5. What do you mean by binary semaphore and counting semaphore? With C struct, explain implementation of wait () and signal. **Jun 14/Jan 15**

6. Describe term monitor. Explain solution to dining philosopher's problem using monitor. **Jun 14.**

7. Explain synchronization? **Jun 14/Jan 15**

8. What are semaphores? Explain solution to producer-consumer problem using semaphores **Jan 16**

UNIT 4

1. Why is deadlock state more critical than starvation? Describe resource allocation graph with a deadlock, with a cycle but no deadlock**. Jun 16/Jun 14**

2. What are two options for breaking deadlock? **Jan 16/Jun 14**

3. Solve the deadlock to find safe or unsafe state **Jun 15 /Jan 15**

4. Describe necessary conditions for a deadlock situation to arise. **Jun 16/Jan 15**

5. Explain different methods to handle deadlocks. **Jun 15/Jan16**

6. Explain different methods to recover deadlocks**. Jan16/Jan 15**

UNIT 5

1. What is paging And swapping? **Jun 15/Jan 16**
2. With a diagram discuss the steps involved in handling a page fault? **Jun 14**
3. What is address binding? Explain the concept of dynamic relocation of addresses? **Jun15**
4. Define external Fragmentation? What are the causes? **Jun 14/ Jan 15**
5. What is paging? Explain the paging hardware? **Jun 15/Jan 16**

6.Memory partitions of 100kb,500 kb,200 kb,300kb,600 kb are available how would best worst, First fit algorithm to place processes 212,417,112,426 in order. Which is the best algorithm?**Jun 16/Jun 14**

7) Differentiate between internal and external fragmentation n? **Jun15/Jan 15**

8)consider the reference stream 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6.how many page faults while using fcfs and lru? **Jun 14**

9. What are the methods of handling the page faults? **Jun 16**

10.Consider reference string?1,2,3,4,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6.How many page faults using 2 frames? **Jun 16/ Jan 15**

11. What is thrashing? What are the causes of thrashing? **Jun 14**

UNIT 6

1. Explain the following i)file types ii)file operation iii)file attributes? **Jun 16/Jan 16/ Jan 15**
2. Explain the method used for implementing directories? **Jun 16/Jan 16**
3. Describe various file Access methods? **Jun 15/ Jan 15**
4. Explain the file system mounting operation**. Jan 15**
5. Mention different file attributes and file types? **Jun 15**

6. How free space is managed? Explain**. Jun 14/ Jun 15**

7. What are the three methods for allocating disk space? Explain **Jun 15**

UNIT 7

1. Describe the access matrix model used for protection purpose? **Jan 16/Jun 14**
2. Explain various disk scheduling algorithms? **Jun 15/Jun 16**
3. Explain the access matrix structure employed in protection domain? **Jun 16/ Jan 15**
4. What is protection goals and principles? **Jun 15/ Jan 15**
5. Differentiate between mechanism and policy**. Jun 15**
6. Write short notes on Revocation of access rights**. Jan 16/ Jan 15**

UNIT 8

1. Write short note on components of Linux system? **Jun 15/Jun 14**
2. Explain the process management model of linux operating system? **Jun 15/Jan 16/ Jan 15**
3. What are the two file system models adopted in linux operating system?**Jun 16**
4. Write notes on buddy system of memory management in unix? **Jun 15**
5. Discuss the various components of linux system? **Jun 15/Jun 14**
6. Interprocess communication in linux system? **Jan 16**
7. What do you mean by cloning? How is it achieved in Linux systems? **Jan 16/ Jan 15**
8. What are the design principles of Linux operating systems? Explain? **Jun15/Jun16/ Jan 15**