



PBA-003-004301 Seat No. _____

B. Sc. (IT) (Sem. III) (CBCS) Examination

November / December – 2018

CS-13 : Operating System

Faculty Code : 003

Subject Code : 004301

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

1 Answer the following question with proper answers : **20**

1. What is page?
2. Give definition of turnaround time.
3. In segmentation _____ register specifies the length of the segment.
4. Give the definition of file attributes.
5. Give the full form of MBR.
6. _____ is also called relocation register.
7. _____ is also known as Elevator algorithm.
8. Use of data In & Data out register in Device controller.
9. Give the name of components of OS.
10. If all resource have _____ instance, we can detect deadlock from resource allocation graph.
11. Give the full form of DMA.
12. Give the full form of SCSI.
13. The problem of external fragmentation arises in _____ partition allocation.
14. Give the full form of MTBF.
15. Give the definition of sector sparing.
16. What is port?
17. Give the definition of seek time.
18. Give the definition of context switch.
19. Give the method for handling deadlock.
20. Virtual memory is larger than physical memory? (True/False)

- 2** (A) Attempt any **Three** : **6**
1. What is Process Affinity?
 2. What is hard error and soft error?
 3. What is Process State?
 4. What is deadlock?
 5. What is Paging and Segmentation?
- (B) Attempt any **Three** : **9**
1. Explain disk scheduling.
 2. Explain file system in Linux.
 3. Explain the semaphore.
 4. Explain real time scheduling.
 5. Explain the swap space management.
 6. Explain file attribute.
- (C) Attempt any **Two** : **10**
1. Explain Contiguous memory allocation
 2. Write a short note on directory structure
 3. Explain page replacement algorithm
 4. Explain the classical problem in process synchronization
 5. Explain dead lock avoidance techniques
- 3** (A) Attempt any **Three** : **6**
1. What is swapping?
 2. What is Kernel?
 3. What is mutual exclusion?
 4. What is race condition?
 5. Write a goal of I/O software
 6. Define Software with types

(B) Attempt any **Three** : **9**

1. Explain file types
2. Explain virtual memory
3. Explain dead lock characteristics
4. Explain PCB
5. Write a note on resource allocation graph
6. Give the type OS. Explain any one of them

(C) Attempt any **Two** : **10**

1. Explain the system calls
 2. Explain device controller
 3. Explain disk scheduling algorithm
 4. Explain the segmentation in detail
 5. Explain any two process scheduling algorithm
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