



JAYA GROUP OF INSTITUTIONS – THIRUNINRAVUR

4th SEM – B.E./B.Tech

INTERNAL ASSESSMENT – III (MODEL EXAMINATION – III)

Sub. Name : Operating Systems

Date : 6/4/15

Sub. Code : CS6401

Branch : CSE

Duration : 180 Minutes

Max. Marks : 100

Part A – (10 X 2 = 20) Answer all Questions

1. What is boot strap loader?
2. Write the types of system calls.
3. What is bounded waiting?
4. Define Starvation and aging.
5. What is TLB? Mention its use.
6. What is Belady's anomaly.
7. What is absolute path name and relative path named.
8. Define external fragmentation.
9. Define Quotas.
10. What is Vmware?

Part B – (5 X 16 = 80) Answer the Questions as per the CHOICE

- 11.(a) Explain the concept of interrupts with neat diagrams. (16)

Or

- (b)i) Explain about System calls and its types. (8)
ii) Explain about various System Structures. (8)

- 12.(a) Explain the concept of cpu scheduling for the following Example.

Assume the following process arrived for execution at the time indicated and also mention the length of CPU burst time given in millisecond.

JOB	BURST TIME	PRIORITY	ARRIVAL TIME
A	10	5	0
B	6	2	0
C	7	4	1
D	4	1	1
E	5	3	2

i) Give gantt chart illustrating execution of the process using FCFS, RR(quantum=5), priority (preemptive and non-preemptive) (4)

ii) Calculate the average waiting time and average turn around time for each of the above scheduling algorithms. (12)

Or

(b) Explain about Dead Lock avoidance algorithm with proper example. (16)

13.(a) (Explain the concept of Paging and segmentation with neat diagrams. (16)

Or

(b) i) Explain about page replacement algorithms and find the page fault for the given reference strings using 4 frames.

A, B, A, B, D, C, B, A, C, B, C, A, B, A, C, D, C, A, B, D (8)

ii) Explain about first fit, Worst fit and Best fit with Proper example. (8)

14. a) Explain about Disk Scheduling and disk management with proper example. (16)

OR

b) Explain about file allocation methods and free space management (16)

15. a) i) Explain about Linux system administration in detail. (8)

ii) Explain about the responsibilities of linux system administrator (8)

OR

b) i) Explain about DNS in detail. (8)

ii) Explain about VMware on Linux host. (8)