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THIRD SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2012

(CCSS)

BCA—Core Course

CA 3B 04--OPERATING SYSTEMS

Time: Three Hours	Movimum . 20 Webbe
I. Answer all questions.	Maximum: 30 Weightage
1 POST is	
2 Multiprocessor systems will haveprocessors.	
3 Name any functionality of OS.	
4 PCB stands for	
5 FCFS is a scheduling algorithm.	
6 Semaphore is used for:	
(a) File management.	
(b) Device management.	
(c) Booting.	
(d) Process synchronization.	
7 Name any one page replacement policy.	
8 Virtual memory = Main memory +	
9 Name any file systems structure.	
10 Is it possible to protect a file from modification $\gamma_{\rm Yes}$ or N_0 .	
11 Spooling stands for	
12 Name any <i>one</i> of the functionality in Device Management.	
IL Answer all questions.	$(12 \times 14 = 3 \text{ weightage})$
What are the various types of Operating System ?	
14 Define timesharing system.	
15 What are the various states of a process ?	
16 What the conditions for the occurrence of deadlock ?	
17 Discuss about any one of the page replacement algorithms.	
18 What you mean V demand paging ?	
19 Discuss about file system structure.	
20 How the OS manages the free space ?	
21 What are the techniques for device management 7	
	$(9 \times 1 = 9 \text{ weightage})$
	Turn over

2,

III. Answer any five questions.

- 22 Discuss about distributed systems with examples.
- 23 Discuss about hardware solution for mutual exclusion problem.
- 24 How to recover from deadlock ?
- 25 Discuss about working set principle.
- 26 Discuss about file system design.
- 27 Discuss about segmentation.
- 28 Discuss about any one of the disk scheduling policies.

$(5 \times 2 = 10 \text{ weigh(age)})$

IV. Answer any two questions.

- 29 Discuss about semaphore with examples for mutual exclusion problem.
- 30 Discuss about the working of paging system in detail.
- 31 Discuss in detail about any one of the disk scheduling algorithms.

 $(2 \times 4 = 8 \text{ weightage})$