

### III Semester B.C.A. Degree Examination, November/December 2017 (Repeaters) (Y2K8 Scheme) **BCA 304 : OPERATING SYSTEMS**

Time: 3 Hours

Max. Marks: 90/100

Instructions: i) Answer all Sections.

ii) Section D is applicable only to students who have taken admission in 2011 - 12 and onwards.

#### SECTION – A

Answer any ten questions.

(10×2=20)

- 1. Define Operating System.
- 2. Define SPOOLING.
- 3. Define Time sharing system.
- 4. Define Deadlock.
- 5. What is thrashing?
- 6. List the different types of files.
- 7. Define Dynamic linking.
- 8. What is RR scheduling?
- 9. What is pure demand paging?
- 10. What is swap space management?
- 11. What is a system call?
- 12. What is Trojan Horse?



Answer any five questions.

13. Explain Multiprogramming system.

14. Explain the states of a process.

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(5×5=25)

## SECTION-B

	15.	Ex	plain any 2 necessary conditions of Deadlock.		
	16.	Ex	plain Semaphores.		
	17.	Wł	nat is page fault? Explain the steps involved in page fault.		
	18.	Ex	plain SCAN scheduling.		
	19.	Ex	plain the structure of Hard disk.		
	20.	Ex	plain virtual machine.		
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	Ans	we	r any three questions. (3x	15=4	5)
	21.	a)	Explain FCFS CPU scheduling with example.		8
		b)	Explain Parallel Operating System.		7
	22.	,	Differentiate b/w pre-emptive and non-preemptive scheduling.  Explain priority CPU scheduling.		7
	23.		Explain Banker's algorithm.		9
			Explain any two file operations.		6
	24.	a)	Differentiate paging and segmentation.		8
		b)	Explain contiguous memory allocation.		7
	25.	a)	Explain types of Fragmentation.		8
		b)	Explain LRU page replacement algorithm with an example.		7
1.7.					

### SECTION - D

Answer any one question:

 $(1 \times 10 = 10)$ 

- 26. Write short notes on:
  - a) Virtual Memory.
  - b) Look disk scheduling.
- 27. Write short notes on:
  - a) MONITORS.
  - b) Resource allocation graph.

