Code No: 115EH

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.Tech III Year I Semester Examinations, February/March - 2016 OPERATING SYSTEMS

(Common to CSE, IT)

Time: 3 hours Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A

	Part- A	
1.a) b) c) d) e) f) g) h) i)	What is the advantage of Multiprogramming? What do you mean by system calls? What is Context Switch? Define Multithreading. What is demand paging? Difference between internal and external fragmentation. Explain swap space management. What is File sharing? Define deadlock avoidance. What are a safe state and an unsafe state?	(25 Marks) [2] [3] [2] [3] [2] [3] [2] [3] [2] [3] [2] [3]
	Part-B	
		(50 Marks)
2.	Discuss the features of the following Operating Systems. a) Distributed Systems b) Real Time Systems.	[5+5]
2 0)	OR	
3.a) b)	Write about operating system functions. Discuss the virtual machines with examples.	[5+5]
4.	Explain: a) Multilevel Q scheduling b) Multilevel feedback scheduling c) Real time scheduling.	[3+3+4]
5.	OR Explain in datail about samenbaras and monitors	(10)
3.	Explain in detail about semaphores and monitors.	[10]
6.	Explain in detail about segmentation with paging. OR	[10]
7.	Describe the following allocation algorithms: a) First fit b) Best fit c) Worst fit	[3+4+3]
8.	Explain in detail about directory structure. OR	[10]
9.	Explain in detail about protection.	[10]

10.	Explain in detail about banker's algorithm with example.	[10]
11 -5	OR What is	. ,
11.a) b)	What is access matrix? What are various methods to implement it. Explain capability based systems.	
	Emphani capability based systems.	[5 ±5]

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