	Enrollme	ent No:					_							
		C.U.SHAH UNIVERSITY												
	Summer Examination-2017													
	Subject N	Subject Name : Operating System												
	Subject (Code: 4TE04OPS1	L	Branch: B.Tech (CE,IT)										
	Semester	: 4 Date :	15/05/2017	Time: 02:0	0 To 05:00	Marks: 70								
	(2) In (3) I	ons: Jse of Programmable Instructions written of Oraw neat diagrams Assume suitable data	on main answer be and figures (if ne	ook are strictly to l	be obeyed.	ohibited.								
Q-1		Attempt the follow	wing questions:	ns:			(14							
	1)	Which one is not Operating System? A) DOS B) LINUX C) WINDOWS D) ORACLE												
	2)		B) Consumer	C) None	D) Both									
	3)	A) Deadlock	B) Aging	C) Starvation	D) System	Crash								
	4) 5)	A) Page Process creation in	B) Frame	C) Virtual Bloc										
	6)	A) New() The address of the	B) Fork()	C) Make()		ess is								
		provided byA) CPU regist	 ers B) program o	counter C) proce	ss stack D) p	ipe								
	7)		utilization resource utilizatio	B) Low D) None	resource utiliza	ition								
	8)		B) Throughput	per unit time is kr C) Efficiency	nown as D) Utilization									
	9)	A) Process Con	ntrol Block.	· ·	ss Control Boar	·d.								
	C) Process Communication Block. D) All of Above. 10) What is the use of pwd Command in UNIX?													
	10)	A) Print Worki C) Removes Fi	ing Directory.	B) Chang	e Working Dire New Directory	-								



C) Offset D) None of the above

11) The _____ is used as an index into the page table.

B) Page No

A) Frame No

	12)	2) A process can be terminated due to								
		A) norma	al exit	B) fatal	error					
		C) killed by another process D) All of the above								
	13)	3) Which of the following page replacement algorithm suffers from Belady's Anomaly?								
		A) Optin	nal B) LI	RU C) FIFO	D) None of the above	;				
	14)	14) A solution to the problem of external fragmentation is								
		A) Comp	action	B) Large Memory	y Space					
		C) Large I	Block Size	D) Less No. of P	rocess					
Attemp	t any f	our questions		o Q-8						
Q-2		Attempt all questions								
	a)	State different types of operating system. Explain any one of them (04)								
	b)	Draw process state diagram. Explain each transition among them in detail (05)								
	c)	What is Deadlock? Explain deadlock conditions (05)								
Q-3		Attempt all questions								
	a)	What is PCB? Explain its fields. (04)								
	b)	Explain Prod	lucer – Consi	ımer problem		(05)				
	c)	Following ta	ble gives arri	val time and expected	run time of five proce	esses. (05)				
		Expected Run Arrival Time								
			Process	Time (Sec)	(Sec)					
			P1	8	1					
			P2	1	4					
			P3	2	2					
			P4	1	5					
			P5	5	6					
		Ignore process switching overhead. Find average turnaround time for Round								
		Robin Algorithm (quantum = 2 sec)								
Q-4		Attempt all questions								
	a)	Explain Segmentation using diagram (0')								
	b)	Explain Paging with diagram. (0								
Q-5		Attempt all questions								
	a)	• •								
	b)	Describe RAID levels Consider the following page reference string: (07)								
		1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2, 3, 6								
		Assuming four empty frames, how many Page Faults would occur for the								
		following Page Replacement Algorithms:								
		FIFO Page Replacement								
		• LRU	Page Replac	ement						
Q-6		Attempt all questions								
	a)	What is I-no		n detail.		(04)				
	b)	Write short note on Fragmentation (
	c)	Explain Acc	_			(05)				
Q-7	,	Attempt all questions								
_	a)	Explain File attributes and File operations (07)								
	b)									
	/		J = 1 1 1 1 1 1 1			(0.)				



Q-8 Attempt all questions

a) Explain following Commands in UNIX
• chmod
• grep
b) Explain Trojan Horse and Logic Bombs.
c) Write a Shell Script to find factorial of given number
(05)

