P1754 T.E. (Computer Engineering) OPERATING SYSTEM DESIGN (2012 Course) (Semester - I) (END SEM.) (310242) Time: 2% Hours (2012 Course) (Semester - I) (END SEM.) (310242) Time: 2% Hours I) Keat diagrams must be drawn wherever necessary. 2) Figures to the right indicate full marks. 3) Assume suitable data, if necessary. (A) Explain fixed and dynamic memory allocation. (B) Explain system calls exect) and brk(). (B) Explain system calls exect) and brk(). (C) Explain recessary conditions for deadlock. (B) Explain and the page fixed page frame of 3 pages. (C) Write page hit and page faults if any. (C) Explain validity fault handler. (C) Explain page stealer process. (B) Explain page stealer process. (B) Explain problems in multiprocessor architecture and Master/Slave solution to tackle it. (C) OR (B) What is socket? Explain all system calls with parameters for client server communication. (B) Computer Engineering)	00	Explain System V IPC mechanism: Shared Memory and Messages.	b)
P1754 P1754 T.E. (Computer Engineering) OPERATING SYSTEM DESIGN (2012 Course) (Semester - I) (END SEM.) (310242) Time: 2% Hours I) Neat diagrams must be drawn wherever necessary: 2) Figures to the right indicate full marks. 3) Assume suitable data, if necessary. OR Q2) a) Explain fixed and dynamic memory allocation. OR Q2) a) Explain necessary conditions for deadlock. b) Explain necessary conditions for deadlock. Execute LRU and OPR on above string. Consider page frame of 3 pages. Write page hit and page faults if any. b) Explain in brief growreg() and dupreg(.). b) Explain page stealer process. What is IPC? Explain process tracing using ptrace() system call. [8] Q5) a) What is IPC? Explain processor architecture and Master/Slave solution to tackle it. OR	rver [8]	What is socket? Explain all system calls with parameters for client secommunication.	Q6) a)
P1754 T.E. (Computer Engineering) OPERATING SYSTEM DESIGN (2012 Course) (Semester - I) (END SEM.) (310242) Time: 2% Hours! I) Nead diagrams must be drawn wherever necessary. 2) Figures to the right indicate full marks. 3) Assume suitable data, if necessary. Q1) a) Explain data structures for demand paging. b) Explain fixed and dynamic memory allocation. OR Q2) a) Explain system calls exec() and brk(). b) Explain necessary conditions for deadlock. Execute LRU and OPR on above string. Consider page frame of 3 pages. Write page hit and page faults if any. b) Explain validity fault handler. OR Q4) a) Explain in brief growreg() and dupreg(). b) Explain page stealer process. [6] By Explain page stealer process. [8] Q5) a) What is IPC? Explain problems in multiprocessor architecture and Master/Slave solution to tackle it.		OR	
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: tas: tas: tas be drawn wherever necessary. the indicate full marks. tata, if necessary. OR m calls exec() and brk(). ssary conditions for deadlock. ssary conditions for deadlock. ing: -12321521625631361243. and OPR on above string. Consider page frame of 3 page tand page faults if any. ty fault handler. OR ief growreg() and dupreg(.). stealer process. Explain process tracing using ptrace() system call.	[8]	Explain problems in multiprocessor architecture and Master/Slave soluto tackle it.	b)
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: tess: test be drawn wherever necessary. the indicate full marks. lata, if necessary. and dynamic memory allocation. OR m calls exec() and brk(). issary conditions for deadlock. issary conditions for deadlock. and OPR on above string. Consider page frame of 3 page tand page faults if any. ty fault handler. OR ief growreg() and dupreg(). stealer process.	00	What is IPC? Explain process tracing using ptrace() system call.	Q5) a)
[5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN BERATING SYSTEM DESIGN (Semester - I) (END SEM.) (310242) (Max. Marks: les: les		A STATE OF THE STA	,
ISAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310242) [Max. Marks: les: les: les: les: les: lua, if necessary. OR on calls exec() and brk(). ssary conditions for deadlock. ssary conditions for deadlock. ssary conditions for deadlock. ty fault handler. OR OR or or or ty fault handler. OR o	4	Explain page stealer process.	(d
[5058]-394 [Total No. of Pages [Total No. of Pages] ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: less: lets: lata, if necessary. lata, if necessary. OR In calls exec() and brk(). issary conditions for deadlock. ing: - 1 2 3 2 1 5 2 1 6 2 5 6 3 1 3 6 1 2 4 3. and OPR on above string. Consider page frame of 3 page tand page faults if any. ty fault handler. OR	[6]	Explain in brief growreg() and dupreg().	
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: [Max. Ma		OR	
[5058]-394 [Total No. of Pages [Total No. of Pages] ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310242) [Max. Marks: less: less: less: let indicate full marks. lata, if necessary. lata, if necessary. OR In calls exec() and brk(). Ing: -12321521625631361243. and OPR on above string. Consider page frame of 3 page tand page, faults if any.	4	Explain validity fault handler.	b)
P1754 P1754 T.E. (Computer Engineering) OPERATING SYSTEM DESIGN (2012 Course) (Semester - I) (END SEM.) (310242) Time: 2½ Hours) Instructions to the candidates: I) Neat diagrams must be drawn wherever necessary. 2) Figures to the right indicate full marks. 3) Assume suitable data, if necessary. OR Q1) a) Explain data structures for demand paging. b) Explain fixed and dynamic memory allocation. OR Q2) a) Explain system calls exec() and brk(). b) Explain necessary conditions for deadlock. [6] G3) a) Reference string: -12321521625631361243. Execute LRU and OPR on above string. Consider page frame of 3 pages.	[6]	Write page hit and page faults if any.	
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310242) [Max. Marks: less: less: let indicate full marks. luta, if necessary. OR on calls exec() and brk(). issary conditions for deadlock. ing: -12321521625631361243.	ges.	Execute LRU and OPR on above string. Consider page frame of 3 page	
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310242) [Max. Marks.] Ital indicate full marks. Ital, if necessary. Ital, if necessary. OR on calls exec() and brk(). Issary conditions for deadlock.		32152162563136124	Q3) a)
SEAT No.: [5058]-394 [Total No. of Pages] ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: les: les: luta, if necessary. luta, if necessary. lutal indicate full marks.	4	Explain necessary conditions for deadlock.	b)
SEAT No.: [5058]-394 [Total No. of Pages ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) [Max. Marks: tes: tes: tes: teta:	0	Explain system calls $exec()$ and $brk()$.	Q2) a)
SEAT No.: [Total No. of Pages] [Total No. of Pages] ERATING SYSTEM DESIGN (Semester - I) (END SEM.) (310242) [Max. Marks] les: les: let indicate full marks. lata, if necessary. lata, if necessary. and dynamic memory allocation.		OR	
SEAT No.: [5058]-394 [Total No. of Pages ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242) tes: tes: tes: tes: tht indicate full marks. that, if necessary. that indicate full marks.	4	Explain fixed and dynamic memory allocation.	b)
SEAT No.: [5058]-394 [Total EE. (Computer Engineering) EERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310: tes: tes: tes: tht indicate full marks. lata, if necessary.	6	Explain data structures for demand paging.	
SEAT No.: [5058]-394 [Total LE. (Computer Engineering) ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310: ses: ses: ses: ses drawn wherever necessary. ht indicate full marks. htt indicate full marks.			
SEAT No.: [5058]-394 [Total LE. (Computer Engineering) ERATING SYSTEM DESIGN Se) (Semester - I) (END SEM.) (310) [105]		reat alagrams must be arawn wherever necessary. Figures to the right indicate full marks. Assume suitable data, if necessary.	
SEAT No.: [5058]-394 [Total LE. (Computer Engineering) ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310)		is to the candidates;	Instruction
SEAT No.: [5058]-394 [Total No. of Pages: LE. (Computer Engineering) ERATING SYSTEM DESIGN se) (Semester - I) (END SEM.) (310242)	: 70		Time: 21/2
SEAT No.: [5058]-394 [Total No. of Pages:		(2012 Course) (Semester - I) (END SEM.) (310242)	
SEAT No.: Total No. of Pages:		T.E. (Computer Engineering)	
	: 2		P1754
			Total No. o

Q7) a) Table 1

00

Name	TOC	OSD	DCWSN	DMSA	FSCA
Sushil	65	69	74	76	45
Mahesh	55	66	73	65	56
Abhishek 45	45	74	55	65	60
Rohit	71	70	78	77	71

Write AWK code (refer Table 1):

- To calculate AVERAGE of marks for each student.
- To calculate PERCENTAGE for each student.
- 9 Explain grep utility and its variations with example.

00

- Q8) a) 9 Explain sorting tool (sort) with example. What is the purpose of make tool? Explain its advantages? Explain different options for make files. [8] 4
- 0 State and Explain difference between UEFI and BIOS 4
- Explain Frame of reference for handheld systems. Explain Android architecture in details. Explain security issues in handheld system. Un U 00
- Q10) Write a short note on following (solve any three) [18]
- Windows scheduling.
- Linux scheduling.
- PalmOS.
- Windows Mobile Phone OS.

PTO.