	Uneah
Name:	
Roll No.:	A Agent of Executing and Explana
Invigilator's Signature :	

SYSTEM SOFTWARE AND ADMINISTRATION

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any ten of the following:

 $10 \times 1 = 10$

- i) Through which facility we can schedule tasks to run at regular intervals in UNIX system?
 - a) at

b) batch

c) corn

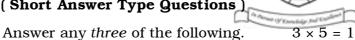
- d) none of these.
- ii) Which of the following commands should you use to add to host 192.168.0.10 a default gateway to 192.168.0.1?
 - a) route add default gw 192.168.0.10 192.168.0.1
 - b) route add default gw 192.168.0.1
 - c) route add 192.168.0.10 default 192.168.0.1
 - d) route 192.168.0.10 gw 192.168.0.1.

6301 [Turn over

- Which loader permits a program to be different parts of the memory? a) Relocating loader b) Absolute loader Direct linking loader d) None of these. c) Which command will delete a user account, the user's iv) home directory including the user's files - and mail spool? userdel -d < user name > a) b) userdel -h < user name > userdel -d/home/username < user name > c) d) userdel -r < user name > v) The/proc file system exists in disk b) cdrom a) d) none of these. c) floopy User installed application software's log files are stored vi) at /home/ b) a) /user/ /bin/ /root/ d) c)
- vii) In which file the password for individual user account is stored in encrypted form in an Unix/Linux system?
 - /etc/passwd a)
- /etc/shadow b)
- c) /etc/gshadow
- d) /etc/group.

	Offique Identifier) in MAC Address?						
	a)	23	b)	48			
	c)	44	d)	24.			
ix)	'IP :	'IP masquerade' is the name given to one type of					
	a)	IP accounting					
	b)	b) Network Address Translation					
	c)	Firewall					
	d)	None of these.					
x)	x) Size of Master Boot Segment is						
	a)	32 bytes	b)	512 bits			
	c)	512 bytes	d)	None of the	ese.		
xi)	The	The list of file systems that are mounted during booting					
are stored in the file							
	a)	/etc/fstab	b)	/etc/rc.d			
	c)	/etc/mtab	d)	/etc/init.d			
xii)	Wh	What is the size of an IPv6 address?					
	a)	32 bytes	b)	4 bytes			
	c)	6 bytes	d)	16 bytes.			
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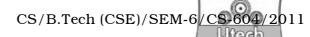
GROUP – B (Short Answer Type Questions)



2. What is NAT? Why is it required? What is the difference between SNAT and Masquerade? 2+1+2

- 3. What is the advantage of a two-pass assembler over a single pass assembler ? What are the different tables used in a two-pass assembler ? 2+3
- 4. How will you see the current run level ? State the different run levels available. How init is related to a run level ? 1+2+2
- 5. a) Explain incremental Backup and Multivolume backup.
 - b) Why/proc filesystem is called virtual filesystem? 2 + 3
- 6. Describe the basic differences between macro and subroutine? Illustrate with examples that sometimes macro is useful and sometimes subroutine is useful.

6301 4

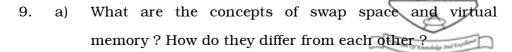


GROUP - C

(Long Answer Type Questions)

Answer any three of the following.

- $3 \times 15 = 45$
- 7. a) Describe how absolute loader works.
 - b) Differentiate between 'compile and go loader' and 'absolute loader'.
 - c) Why is relocation required?
 - d) What are basic tasks of a macro instruction processor? 5+3+2+5
- 8. a) What are the difference between NIS and NIS+ server?
 - b) How can you secure a NIS server?
 - c) Describe the following three options regarding NFS (Network File System):
 - i) link-absolute
 - ii) map-daemon
 - iii) map-identity.
 - d) Explain why level 1 backup is called an incremental backup. 4 + 5 + 3 + 3



- b) Explain logical volumes.
- c) Describe the format used in /etc/passwd and/etc/shadow file.
- d) What is Boot disk? Explain.
- e) Change the permission of the file "abc.txt" such that the file is accessed by owner in write mode and the group users access the file in read only mode and others will not be able to access the file in any form.

$$(2+2)+3+3+2+3$$

- 10. a) What is I-node?
 - b) What is the use of each of the following files?
 - i) /etc/grub.conf
 - ii) /etc/fstab
 - iii) /etc/inittab
 - c) What is umask? How can a file permission be defined by using it?
 - d) What do you mean by disk inode and incore inode?

$$2 + 6 + 3 + 4$$

6301



11. a) What are the advantages of partitioning?

b) What is a logical volume? What is a superblock? What information about a file system does it contain?

- c) Differentiate between a character and a block file.
- d) How will you
 - i) see the loadable kernel modules?
 - ii) show all environment variables?
 - iii) modify user account?
 - iv) search a partition for bad blocks? 3 + 6 + 2 + 4