



Name :

Roll No. :

Invigilator's Signature :

CS/B.Tech(CSE/OLD)/SEM-6/CS-604/2013

2013

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 the following : $10 \times 1 = 10$
 - i) Base table is used by the assembler
 - a) Only to generate the proper base register
 - b) Only to compute the correct offsets
 - c) To generate the proper base register and to compute the correct offsets
 - d) None of these.
 - ii) In the functioning of an assembler, constant are maintained in
 - a) Symbol table
 - b) Constant table
 - c) Op-table
 - d) Literal table.
 - iii) ALA is used with respect macro, in to
 - a) Pass 1 only
 - b) Pass 2 only
 - c) Both Pass 1 and Pass 2
 - d) None of these.



- iv) Link editor is an instance of
 - a) An editor
 - b) An assembler
 - c) A binder
 - d) None of these.
- v) Overlay structure is efficient in respect of
 - a) Memory requirement
 - b) Time requirement
 - c) Both Memory requirement and Time requirement
 - d) None of these.
- vi) Name of the command used to count word
 - a) WC
 - b) Word count
 - c) Ward Count
 - d) None of these.
- vii) Command for setting priority of a process
 - a) cp
 - b) nice
 - c) change
 - d) pri.
- viii) Bootstrap loader looks for in the boot sector.
 - a) Boot loader
 - b) BIOS
 - c) Kernel
 - d) init.
- ix) Command for shutdown computer from command prompt
 - a) init 0
 - b) init 1
 - c) init 4
 - d) init 3.
- x) Encryption of user password is done by
 - a) RSA
 - b) DES
 - c) Digital Signature
 - d) Hash.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 × 5 = 15

2. What do you mean by system software ? Give a descriptive overview of system software in computer system. 2 + 3
3. What is the role of assembler ? Give the step of general design procedure of assembler. 2 + 3
4. Write down the duties of System Administrator ?
5. What is the working principle of FTP.
6.
 - a) What id daemon ?
 - b) What happen if we write init 0 in the prompt and press enter ?
 - c) What is an I-node ?
 - d) What is port of FTP ?
 - e) What is port of HTTP ?

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

7.
 - a) What are the different types of attacks ? Name one mechanism to prevent this type of attack.
 - b) Name the different type of chains and give short description of them.
 - c) What is the difference between antivirus and firewall.
 - d) Short note on run level.
 - e) What is the command to schedule a process ?

2 + 1 + 5 + 3 + 3 + 1



8. a) What is the features NFS offers ?
b) How to run DNS without using NIS ?
c) Write down the difference between NIS and NIS+.Can you run NFS across the TCP/IP protocol ?
d) Write down the full form of NFS, NIS, HTTP, DNS.
e) How does NIS help the administrator to manage the user in a network environment ? 4 + 3 + 2 + 3 + 3
9. a) How to configure and compile the Kernel.
b) How to know the version of your kernel ? If a kernel version is 2.2.15 then what it means ?
c) Write a short on/proc file system.
d) How to enabling/disabling he interface with ifconfig ?
e) What is the ping command ? What is the full form of DHCP ? How to know the address of eth0 in your, computer ? 3 + 3 + 3 + 3 + 3
10. a) Write down the typical structure of MACRO definition.
b) What are the salient feature of Direct linking loader ?
c) Difference between linker and loader. 6 + 6 + 3
11. Write short notes on any *three* of the following : 3 × 5
- a) Firewall
b) IP Table
c) IP Masquerade
d) Init and Inittable file
e) Different types of shell.