

2019

BCA

4th Semester Examination
OS & Computer Network Lab

Paper – 2297

(Practical)

(Set – II)

Full Marks – 100

Time : 3 Hours

*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

(Operating System Lab)

Answer any **one** question(on lottery basis): 25×1

1. Write a shell script to calculate the salary of an employee.

Salary = Basic+DA+HRA+MA-PF

Basic - to be taken as input

DA - 65 % of Basic

HRA - 8 % of (Basic+DA)

MA - 3 % of (Basic +DA)

PF - 10 % of (Basic+DA)

2. Write a shell script to take two numbers from command line and show result of dividing the first one with the second. Your program should not accept zero or negative number . If user enters zero or negative number then the program should prompt to input correct number after displaying proper message.
3. Write a shell script to determine the number of files and directories are in the current directory. Also list the file and directory name separately.
4. Write a shall script that accepts a file name in the current directory and counts the number of vowels in the file ignoring the case.
5. Write a shell script to generate a random number of one digit. Allow user to guess the number four times. Print appropriate message after each unsuccessful guess. If the user succeeds ,terminate the program providing a success message.
6. Write a shell script that deletes all files with size less than 1KB in current directory.
7. Write a shell script to list all the files in the current directory having read and write permissions for all.
8. Write a shell script to input a number & display it in words

9. Write a shell program to find out prime numbers from range 10 to 50.
10. Write a shell program to calculate the value of

$$\frac{1!}{1} + \frac{2!}{2} + \frac{3!}{3} + \frac{4!}{4} + \frac{5!}{5}$$

GROUP – B

(Computer Network Lab)

Answer any **one** question (on lottery basis) :

25×1

1. Write a program that takes an (IPv4) IP address as input and determines the class of that address.
2. Write a program to construct a TCP server which sends the current date and time to the client when communicated via port No. 4567.
3. Write a program to create a TCP client which is capable to communicate with a TCP server.
4. Write a program to determine the checksum of a data the length of which is two bytes.
5. Write a program to construct a broadcast server.
6. Write a program to create a broadcast receiver which can receive a message broadcasted by a broadcast server.
7. Write a program that behaves like a simple TELNET.

8. Write a program that will return the IP address of the local host.
9. Write a UDP server program that receive a string of character from client.
10. Write a socket program to send a data from server to client as user like input using UDP program.

Viva-Voce : 15

PNB : 05

[Internal Assessment – 30 marks]
