2017

BCA

4th Semester Examination

OS LAB AND COMPUTER NETWORK LAB

PAPER—2297 (SET-2)

(PRACTICAL)

Full Marks : 100

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

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

Questions should be distributed on lottery basis.

Answer any *two* questions taking *one* from each group.
(on lottery basis)

Group — A

(OS Lab)

Answer any *one* on lottery basis :　　　　1×25

1. Write a shell program to implement linear search.

2. Write a shell program to convert a decimal number to its equivalent binary number.

3. Write a shell program which gets executed the moment the user logs in. It should display the message

"Good morning" *or*

"Good afternoon" *or*

"Good evening"

depending upon the time at which the user logs in.

4. Write a shell program to find the LCM and HCF of any three given number.

5. Write a shell program to implement multiplication table of a given number.

6. Write a shell program to draw the following pattern :

```
1
1 2
1 2 3
1 2 3 4
```

7. Write a shell program to check whether a string is palindrome or not.

8. Write a shell program to perform bubble sort in a given array of *n* elements.

9. Write a shell program which will copy a file to other file name. The source and destination should· be given as command line argument.

(Continued)

10. Write a shell program to list out the Armstrong number between 99 to 9999.

11. Write a shell program to draw the following pattern :

```
        1
      1 2 1
    1 2 3 2 1
  1 2 3 4 3 2 1
```

12. Write a shell program to calculate the following series.

$$\frac{1}{1^2} + \frac{1}{2^2} + \frac{1}{3^2} + \ldots\ldots\ldots + \frac{1}{n^2}$$

Group — B

(*Network Lab*)

Answer any *one* on lottery basis : 1×25

1. Write a UDP server program that receives a string of character from the client.

2. Write a program to implement connections sender to send UDP message to peer.

3. Write a TCP client program that asks for the time from a TCP server.

4. Write a UDP echo server program using socket.

5. Write a program to implement modified server.

6. Write a program to implement character send and receive from server.

7. Write a server procedure that sleeps for 15 seconds.

8. Write a TCP client server program that behaves like a simple TELENET.

INSTRUCTIONS

Distribution of Marks —

Practical Note Book	:	**05**
Viva-Voce	:	**15**

Experiments —

Group – A	:	**25**
Group – B	:	**25**
Internal Assessment	:	**30**
TOTAL	:	**100**