

**2015****BCA****4th Semester Examination****OS AND NETWORK LAB****PAPER—2297 (SET-1)****(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 check if a given string is Palindrome.
2. Write a shell program to check a number is Armstrong number.
3. Write a shell program to calculate factorial of given input.

*(Turn Over)*

4. Write a shell program to calculate average of given n numbers.
5. Write a shell program to display Fibonacci numbers.
6. Write a shell program to convert decimal to its equivalent binary number.
7. Write a shell program of linear search algorithm.

**Group — B**  
**(Network Lab)**

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

1. Write a socket program to print all client IP address and their relative port.
2. Write a UDP echo server program using socket.
3. Write a TCP server program that receive a string of characters from the client.
4. Write a TCP client program that behaves like a simple TELNET.
5. Write a server procedure that sleeps for 30 seconds.
6. Write a UDP server program that receive a string of character from the client.
7. Write a TCP client program that asks for the time from a TCP server.

**Viva-Voce** : 15  
**Practical Note Book** : 05  
**Internal Assessment** : 30