

Write a shell script to draw the following pattern.

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

16) Write a shell script to convert a binary number to octal.

18) Write a shell script to convert decimal number to its equivalent binary number.

19) Write a shell script to check if a string is palindrome or not.

20) Write a shell script to display first n Fibonacci numbers.
Where n is read from keyboard.

- ① Write a shell script to find the LCM & HCF of any three given numbers.
- ② Write a shell script to perform bubble sort in a given array of n elements.
- ③ Write a shell script to implement linear search.
- ④ Write a shell script to draw the following pattern.

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

```

- ⑤ Write a shell script to calculate factorial of given input the output will be displayed as $4 \times 3 \times 2 \times 1 = 24$.
- ⑥ Write a shell program to draw the following pattern.

```

M
M I
M I D
M I D N
M I D N A
M I D N A P
M I D N A P U
M I D N A P U R

```

- ⑦ Write a shell script to find out perfect numbers from range 1 to 100.
- ⑧ Write a shell script to display the multiplication table of any given number.
- ⑨ Write a shell script to implement binary search.
- ⑩ Write a shell script to input a number and display it in words.
- ⑪ Write a shell script to calculate the following series:
 $1 + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n}$
- ⑫ Write a shell script to check whether a string is palindrome or not.
- ⑬ Write a shell program to find out prime numbers from range 50 to 120.
- ⑭ Write a shell program to evaluate the arithmetic expression $M = [(a+b) + (c-d) \times e \% f]$ where a, b, c, d, e, f are integer numbers.
- ⑮ Write a shell script to check if a number is Armstrong or not.
- ⑯ Write a shell script to sort n elements using selection sort method.