Ans to Q.No (1)

```
#!/bin/bash

total=0
for (( i=0; i<10; i++ ))
do
        read num
        if [ $(($num%2)) == 0 ] && [ $(($num%8)) != 0 ];
                then total=$(($total+$num))
        fi
done

echo "Total = $total"
```

Ans to Q.No (2)

```
#!/bin/bash

read num

if [ $(($num%4)) != 0 ] && [ $(($num%5)) != 0 ] && [ $(($num%10)) == 0 ]
then echo "Rasengan"

elif [ $(($num%5)) == 0 ] && [ $(($num%6)) == 0 ]
then echo "Rasen Shuriken"

elif [ $(($num%5)) == 0 ] || [ $(($num%6)) == 0 ]
then echo "Oodama Rasengan"

fi
```

Ans to Q.No (3)

```
#!/bin/bash


isHappy () {
        rem=0
        total=0
        num=$1

        while [ "$num" -gt 0 ]
        do
                rem=$(($num%10))
                total=$(($total+$(($rem*$rem))))
                num=$(($num/10))
        done

        return $total
}


read x

while [ $x != 1 ] && [ $x != 4 ];
do
   isHappy $x
   x=$?
done

if [ $x == 1 ];
        then echo "Happy Prime"
elif [ $x == 4 ];
        then echo "Sad Number"
fi
```

Ans to Q.No (4)

```
#!/bin/bash


addition () {
        ans=$(($1+$2))
        return $ans
}

subtraction () {
        ans=$(($1-$2))
        return $ans
}

multiplication () {
        ans=$(($1*$2))
        return $ans
}


read x y z

if [ "$x" -gt "$y" ];
        then subtraction x y
        echo "As 1st num > 2nd num, the result is = $?"
fi

if [ "$z" -lt "$y" ];
        then addition z y
        echo "As 3rd num < 2nd num, the result is = $?"
fi

if [ "$y" -eq "$z" ];
        then multiplication y z
        echo "As 2rd num = 3rd num, the result is = $?"
fi
```

Ans to Q.No (5)

```
#!/bin/bash


echo "How many numbers do you intend to sort?"
read x

arr=()

echo "Please Input the numbers you want to sort. After every number, press Enter"

while [ "$x" -gt 0 ];
do
        read num
        arr+=($num)
        x=$(($x-1))
done


for i in ${!arr[@]};
do
        for (( j=0; j<$((${#arr[@]}-1)); j++ ))
        do
                if [ "${arr[$i]}" -lt "${arr[$j]}" ]; then
        temp=${arr[$i]}
        arr[$i]=${arr[$j]}
        arr[$j]=$temp;
    fi
        done
done


echo "The sorted array is:"

for str in ${arr[@]}; do
  echo $str
done
```