Q.1)

ANS -

**percentage=float(input("Enter your Percentage :"))**

**if percentage>90:**

**print("Your Grade is A")**

**elif 80<percentage<=90 :**

**print("Your Grade is B")**

**elif 60<percentage<=80 :**

**print("Your Grade is C")**

**elif percentage<=60 :**

**print("Your Grade is D")**

Q.2)

ANS -

**BikeCostPrice=int(input("Enter your bike cost price : \n"))**

**tax=0**

**if BikeCostPrice>100000:**

**tax=BikeCostPrice\*0.15**

**elif 50000<BikeCostPrice<=100000 :**

**tax=BikeCostPrice\*0.1**

**elif BikeCostPrice<=50000 :**

**tax=BikeCostPrice\*0.05**

Q.3)

ANS -

**city=input("""enter your the city name from the following \n**

**1.Delhi 2.Agra 3. Jaipur \n""")**

**d={**

**"Delhi":"Red Fort",**

**"Agra":"Taj mahal",**

**"Jaipur":"Jal Mahal"**

**}**

**if city=="Delhi" or city=="Agra" or city=="Jaipur":**

**print(d[city],"is the monument in ",city)**

**else:**

**print("inappropriate input ")**

Q.4)

ANS -

**number=int(input("enter the number you want to check : \n"))**

**count=0**

**while number>10:**

**number/=3**

**count+=1**

**print(F"The number can be printed {count} numbers of time")**

Q.5)

ANS -

The while loop in Python is used when you want to repeat a block of code as long as a certain condition is met.

The code inside the loop will be executed repeatedly as long as the condition is true. Once the condition becomes false, the loop will stop and the program will continue with the next statement after the loop.

**count = 1**

**while count <= 10:**

**print(count)**

**count += 1**

In this example, the loop starts with count set to 1. The condition is count <= 10, which means that the loop will run if count is less than or equal to 10. The loop will print the value of count and then increment count by 1 on each iteration. The loop will stop when count becomes 11, at which point the condition is false and the loop terminates.

The while loop is useful when you do not know beforehand how many times you need to repeat the loop. It's also a good choice when you want to repeat the loop until some condition is met, such as when the user enters a specific value, or when a file has been read completely.

Q.6.A)

**rows = 6**

**for i in range(1, rows + 1):**

**j = 1**

**while j <= i:**

**print("\*", end="")**

**j += 1**

**print()**

Q.6.B)

**rows = 6**

**for i in range(rows, 0, -1):**

**j = 1**

**while j <= i:**

**print("\*", end="")**

**j += 1**

**print()**

Q.6.C)

**rows = 6**

**for i in range(1, rows + 1):**

**j = 1**

**while j <= (rows - i):**

**print(end=" ")**

**j += 1**

**k = 1**

**while k <= (2 \* i - 1):**

**print("\*", end="")**

**k += 1**

**print()**

**for i in range(rows - 1, 0, -1):**

**j = 1**

**while j <= (rows - i):**

**print(end=" ")**

**j += 1**

**k = 1**

**while k <= (2 \* i - 1):**

**print("\*", end="")**

**k += 1**

**print()**

Q.7)

You can use a while loop to print numbers from 10 to 1 in reverse order like this:

**number = 10**

**while number >= 1:**

**print(number)**

**number -= 1**