PRACTICAL 9
Write a program for A/D Conversion

Code -

```
import math

flag_levels = True
while(flag_levels):
      try:
            number_of_levels = int(input("Please Enter Number of Levels : "))
            flag_levels = False
      except:
            print("----------- Please Enter Valid Input-------------")

flag_max_volt = True
while(flag_max_volt):
      try:
            maximum_voltage = int(input("Please Enter Maximum Voltage : "))
            flag_max_volt = False
      except:
            print("----------- Please Enter Valid Input-------------")

flag_min_volt = True
while(flag_min_volt):
      try:
            min_voltage = int(input("Please Enter Minimum Voltage : "))
            flag_min_volt = False
      except:
            print("----------- Please Enter Valid Input-------------")

while(True):
      flag_sampled_value = True
      while(flag_sampled_value):
            try:
                  print("")
                  sampled_value = float(input("Please Enter Sampled Value :
"))
                  flag_sampled_value = False
            except:
                  print("----------- Please Enter Valid Input-------------")

      d = (maximum_voltage - min_voltage)/number_of_levels
      normalised_value = sampled_value/d
      quantised_value = math.floor(normalised_value) + 0.5
      quantised_code = quantised_value + ((number_of_levels/2)-0.5)
      print("Digital data is : " , format(int(quantised_code),"b") )
```

Screenshot of Output -