ASSIGNMENT

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# SECTION- U

SUBJECT- PYTHON PROGRAMMING

Q1- Write a program to guess the correct number.

ANS-import random

number = random.randint(1, 100) guess = int(input("Guess a number between 1 and 100: ")) tries = 1 while guess != number: if guess > number: print("Too high") else:

print("Too low") guess = int(input("Guess again: ")) tries += 1

print(f"Congratulations! You guessed the number {number} in {tries} tries.")

Q2-Write a program for rock,paper,scissor

(computer vs human)

ANS- import random

print("Let's play Rock, Paper, Scissors!")

player\_choice = input("Enter your choice (rock/paper/scissors): ").lower() computer\_choice = random.choice(["rock", "paper", "scissors"]) if player\_choice == computer\_choice: print(f"Both players chose {player\_choice}. It's a tie!") elif player\_choice == "rock": if computer\_choice == "paper":

print("You chose rock and the computer chose paper. You lose!")

else:

print("You chose rock and the computer chose scissors. You win!") elif player\_choice == "paper": if computer\_choice == "rock":

print("You chose paper and the computer chose rock. You win!")

else:

print("You chose paper and the computer chose scissors. You lose!") elif player\_choice == "scissors": if computer\_choice == "rock":

print("You chose scissors and the computer chose rock. You lose!")

else: print("You chose scissors and the computer chose paper. You win!") else: print("Invalid choice. Please try again.")

Q3- Write a program to generate password with a fixed length

ANS- import random

import string def generate\_password(length):

characters = string.ascii\_letters + string.digits + string.punctuation password = ''.join(random.choices(characters, k=length)) return password

length = int(input("Enter the length of the password: ")) password = generate\_password(length) print(f"Your random password is: {password}")

Q4- Write a program to roll the dice till the 6 number is not appear. (computer vs human)

ANS- import random

def roll\_dice():

return random.randint(1, 6) def play\_game():

print("Let's roll the dice until 6 appears!") input("Press Enter to roll the dice...") result = roll\_dice() print(f"You rolled a {result}") while result != 6:

input("Press Enter for the computer's turn...") result = roll\_dice() print(f"The computer rolled a {result}") print("You win!")