Solutions: Random Module Assignment

Question 1: Random Integer

```
import random
# Generate a random integer between 1 and 10 (inclusive)
random_integer = random.randint(1, 10)
print(random_integer)
```

Question 2: Random Floating-Point Number

```
import random
# Generate a random floating-point number between 0 and 1
random_float = random.random()
print(random_float)
```

Question 3: Random Choice from a List

```
import random
fruits = ["apple", "banana", "cherry", "date", "elderberry"]
chosen_fruit = random.choice(fruits)
print(chosen_fruit)
```

Question 4: Randomly Shuffled List

```
import random
numbers = [1, 2, 3, 4, 5]
random.shuffle(numbers)
print(numbers)
```

Question 5: Random Password Generator

```
import random
import string
# Generate a random password of 8 characters
password = ''.join(random.choices(string.ascii_letters + string.digits, k=8))
print(password)
```

Question 6: Random Dice Roll Simulator

```
import random
# Simulate rolling a six-sided die
die_roll = random.randint(1, 6)
print("You rolled a", die_roll)
```

Question 7: Random Sampling

```
import random
colors = ["red", "blue", "green", "yellow", "orange"]
selected_colors = random.sample(colors, 3)
print(selected_colors)
```

Question 8: Randomize a Deck of Cards

```
import random
suits = ['Hearts', 'Diamonds', 'Clubs', 'Spades']
ranks = ['2', '3', '4', '5', '6', '7', '8', '9', '10', 'Jack', 'Queen', 'King', 'Ace']
deck = [f"{rank} of {suit}" for rank in ranks for suit in suits]
random.shuffle(deck)
print(deck[:5])
```

Question 9: Generating a Random Integer Within a Range

```
import random
lower_bound = int(input("Enter the lower bound: "))
upper_bound = int(input("Enter the upper bound: "))
random_integer = random.randint(lower_bound, upper_bound)
print(f"Random integer between {lower_bound} and {upper_bound}:
{random_integer}")
```