Python exercises for beginners

Batch 1

1. String concatenation: Write a program that takes two strings as input and returns the concatenation of the two strings.
2. Maximum of three numbers: Write a program that takes three numbers as input and returns the maximum of the three.
3. FizzBuzz: Write a program that prints the numbers from 1 to 100, but for multiples of three, it should print "Fizz" instead of the number, and for multiples of five, it should print "Buzz". For numbers that are multiples of both three and five, it should print "FizzBuzz".
4. Sum of digits: Write a program that takes a positive integer as input and returns the sum of its digits.
5. Print stars: Write a program that takes a positive integer as input and prints that many asterisks (*) on a single line.
6. Reverse a string: Write a program that reverses a given string.
7. Maximum and minimum of a list: Write a program that takes a list of numbers as input and returns the maximum and minimum of the list.
8. Guessing game: Write a program that generates a random number between 1 and 100, and allows the user to guess the number. The program should give feedback on each guess (e.g. too high, too low, correct), and keep track of the number of guesses.
9. Average of numbers: Write a program that calculates the average of a list of numbers entered by the user.
10. Median of a list: Write a program that takes a list of numbers as input and returns the median of the list.

Batch 2

1. Factorial: Write a function that takes a positive integer as input and returns its factorial.
2. Fibonacci sequence: Write a function that takes a positive integer as input and returns

the first n numbers of the Fibonacci sequence.

3. Palindrome: Write a function that takes a string as input and returns True if the string is a palindrome, and False otherwise.
4. Least common multiple: Write a function that takes two positive integers as input and returns their least common multiple.
5. Power of a number: Write a function that takes two numbers, a base and an exponent, as input and returns the power of the base raised to the exponent.
6. GCD: Write a function that takes two positive integers as input and returns their greatest common divisor.
7. Largest string: Write a function that takes a list of strings as input and returns the largest string in the list.
8. Reverse string: Write a function that takes a string as input and returns the string in reverse order.
9. Upper case: Write a function that takes a string as input and returns the string in all upper case.
10. Lower case: Write a function that takes a string as input and returns the string in all lower case.

Batch 3

1. Convert temperature: Write a program that converts Celsius to Fahrenheit and vice versa.
2. Grade calculator: Write a program that calculates the final grade of a student based on their scores for several assignments and exams.
3. Odd or even: Write a program that determines if a given number is odd or even.
4. Prime numbers: Write a program that determines if a given number is prime.
5. Multiplication table: Write a program that generates a multiplication table for the numbers 1 to 10.
6. Reverse order of words in a sentence: Write a program that takes a sentence as input and returns the sentence with the words in reverse order.
7. Reverse order of elements in a list: Write a program that takes a list of numbers as input and returns the list with the elements in reverse order.

8. Word count: Write a program that takes a string as input and returns the number of words in the string.
9. Vowel count: Write a program that takes a string as input and returns the number of vowels (a, e, i, o, u) in the string.
10. Capitalize first letter of each word: Write a program that takes a sentence as input and returns the sentence with the first letter of each word capitalized.