# Python Test

Q1. Write a Python function called `multiply` that takes two parameters `a` and `b` and returns their product.

Q2. Write a Python program to print all the even numbers between 1 and 20 using a for loop.

Q3. Write a Python program that takes an integer input from the user and prints whether it is positive, negative, or zero using if...else statements.

Q4. Write a Python program to print the following pattern:

```
*
**
***
****
```

Q5. Write a Python function called `is_prime` that takes an integer parameter `num` and returns True if it is a prime number, otherwise returns False.

Q6. Write a Python program to calculate the factorial of a number using a while loop.

Q7. Write a Python program that takes three integers as input from the user and prints the largest of them using if...else statements.

Q8. Write a Python program to print the following pattern:

```
1
22
333
4444
```

Q9. Write a Python function called `reverse_string` that takes a string parameter `s` and returns its reverse.

Q10. Write a Python program to print the Fibonacci series up to n terms using a for loop.

Q11. Write a Python program that takes a character as input from the user and prints whether it is a vowel or a consonant using if...else statements.

Q12. Write a Python program to print the following pattern:

```
****
***
**
*
```

Q13. Write a Python function called `calculate_area` that takes two parameters `length` and `width` and returns the area of a rectangle.

Q14. Write a Python program to print all the prime numbers between 1 and 50 using a while loop.

Q15. Write a Python program that takes a string as input from the user and checks whether it is a palindrome or not using if...else statements.

Q16. Write a Python program to print the following pattern:

```
1234
123
12
1
```

Q17. Write a Python function called `calculate_power` that takes two parameters `base` and `exponent` and returns the result of raising the base to the exponent power.

Q18. Write a Python program to find the sum of all numbers divisible by 3 or 5 between 1 and 100 using a for loop.

Q19. Write a Python program that takes two integers as input from the user and prints their sum if they are both even, otherwise prints their product using if...else statements.

Q20. Write a Python program to print the following pattern:

```
*
**
***
****
*****
```