**Q1**

**Simple calcuator**

**Program:**

def add(P, Q):

   return P + Q

def subtract(P, Q):

   return P - Q

def multiply(P, Q):

   return P \* Q

def divide(P, Q):

   return P / Q

print ("Please select the operation.")

print ("a. Add")

print ("b. Subtract")

print ("c. Multiply")

print ("d. Divide")

choice = input("Please enter choice (a/ b/ c/ d): ")

num\_1 = int (input ("Please enter the first number: "))

num\_2 = int (input ("Please enter the second number: "))

if choice == 'a':

   print (num\_1, " + ", num\_2, " = ", add(num\_1, num\_2))

elif choice == 'b':

   print (num\_1, " - ", num\_2, " = ", subtract(num\_1, num\_2))

elif choice == 'c':

   print (num\_1, " \* ", num\_2, " = ", multiply(num\_1, num\_2))

elif choice == 'd':

   print (num\_1, " / ", num\_2, " = ", divide(num\_1, num\_2))

else:

   print ("This is an invalid input")

**Output:**



**Q3**  
1. Python is easy to learn

2. Python has an active, supportive community

3. Python is flexible

4. Python offers versatile web-development solutions

5. Python is well suited to data science and analytics

6. Python is efficient, fast, and reliable

7. Python is widely used with IoT Technology

8. Python empowers custom automation

9. Python is the academic language

**Q4**

1. Full-Stack Framework

A full-stack framework, also known as enterprise framework, is the one-stop solution for all development needs. These have built-in libraries configured to work seamlessly together. They support the development of databases, frontend interfaces, and backend services.

2. Microframework

Microframeworks are lightweight, minimalistic web application frameworks that have limited functionalities and features. Usually, microframeworks offer only those components that are required for building an application. They lack many additional functionalities and features like database abstraction layer, form validation, web template engine, authentication functionality, authorization, input validation, and input sanitation.

3. Asynchronous Framework

The asynchronous framework is the latest to join the Python framework bandwagon. It is a unique microframework that lets Developers handle and manage large sets of concurrent connections. These frameworks feed on Python’s Asyncio library.

**Q5**

The Web Server Gateway Interface (WSGI) is a standard interface between web server software and web applications written in Python