Q1. What is Python?

1. A computer language
2. An integrated development language
3. An operating system
4. A GUI

Answer: A computer language An integrated development language

[ 1 mark]

Q2. What is IDLE?

1. A computer language
2. An integrated development languge
3. An operating system
4. A GUI

Answer: An integrated development language. A GUI

[ 1 mark]

Q3. Copy and paste the code from an IDLE interactive mode session that produces the following output:

Coding is Fun!

print("Coding is Fun!")

[ 1 mark]

Q4. Copy and paste the code from an IDLE interactive mode session that creates a **variable** called num and assigns it the value 0 (zero).

Num = 0

[ 1 mark]

Q5. Copy and paste the code from an IDLE interactive mode session that uses your variable num from Q4 to create a **while loop** that produces the following output:

1

2

3

4

for number in range (0,5):

print(number)

[ 2 mark]

Q6. Copy and paste the code from an IDLE interactive mode session that will ask a user for his or her name and then store it in a variable called user.

user = input("What is your name?")

print(user)

[ 2 mark]

Q7. Look a this code snippet from an IDLE script and **correct the error** in it:

import random

number = random.randint(1,3)

if number == 1:

print("Way to go!")

elif number == 2:

print("Bad luck!")

else number == 3:

print("Please try again.")

# app continues below this

[ 1 mark]

Q8. Below is the code for a simple dice app. Add some code to line 2 to make it work:

import random

result = random.randint(1,6)

print(result)

[ 1 mark]

Q9. Below is a green tinter canvas that is 400 pixels wide by 200 pixels high. Type an 'X' where you think the coordinate (100, 100) will be.

400

X

200

[ 1 mark]

Selection (using IF)

Q10. Complete the following question. Choose a difficulty and apply it.

Easy task –

Create a program that accepts a number from the keyboard. If the number is larger than 100 the message “larger than 100” is shown on the screen otherwise “less than 100 is shown”.

Medium task –

Create a program that accepts a test score from the keyboard. If the score is

larger than 20 the message “You achieved an A” is outputted, if it is between 10

and 19 the message “You achieved a C” is and less than 10 “You failed the test”.

Hard task –

Create a program that accepts two numbers from the keyboard. The user is then asked to input if they would like to add, subtract, divide or multiply the numbers. That sum is then done with the answer shown on the screen.

What level of Difficulty have you gone for?

Hard!

Copy and paste the code from an IDLE interactive mode session that complete the chosen task

number1 = int(input("Enter one number."))

number2 = int(input("Enter a second number."))

method = input("Would you like to add, subtract, divide or multiply?")

if method == "add":

result = number1 + number2

print(result)

elif method == "subtract":

result1 = number1 - number2

print(result1)

elif method == "divide":

result2 = number1 / number2

print(result2)

elif method == "multiply":

result3 = number1 \* number2

print(result3)

Inputting Data

Q11. Complete the following question. Choose a difficulty and apply it.

**Easy task** –

Ask the user for their favourite animal and save this in a variable (with a suitable name). Output the variable onto the screen.

**Medium task** –

Write a program that does the following:

What is your first name? John

What is your last name? Smith

Hello John Smith

**Hard task** –

Accept a country from the keyboard and then its population. On the screen output the results in the following format:

Brazil has a population of 32000000 people.

What level of Difficulty have you gone for?

Hard!

Copy and paste the code from an IDLE interactive mode session that complete the chosen task

country = input("What is your country?")

population = int(input("What is the population of your country?"))

print(country, "has a population of", population ,"people.")

Q12. If…Then – Proof of Age Program

Write a program that will ask for a person’s age and the name of the item being sold.

* If the item is a knife, spray paint or a lottery ticket and the person is under 16, then the computer should display “Sale Denied – Item cannot be sold to Under 16s”.
* If the item is alcohol or tobacco and the person is under 18, then the computer should display “Sale Denied – Item cannot be sold to Under 18s”.
* If the item is alcohol and the person is 25 or under then the computer should display “Check ID before selling alcohol – Challenge 25”.
* For anything else, the computer should display “Sale Accepted”.

Copy and paste the code from an IDLE interactive mode session that complete the chosen task

if item == "Knife" or "Spray Paint" or "Lottery Ticket":

if age <=16:

print("Sale Denied - Item cannot be sold to under 16s")

else:

print("Sale Accepted")

if item == "Alcohol" or "Tobacco":

if age <=18:

print("Sale Denied - Item cannot be sold to under 16s")

else:

print("Sale Accepted")

if item == "Alcohol":

if age <=25:

print("Check ID before selling.")

else:

print("Sale Accepted")