Test

Test: Conditional Statements (Passing Multiple Conditions) in Python

Multiple Choice Questions (MCQs)

Q1. What will be the output of the following code?

```
x = 10
y = 5
if x > 5 and not y == 5:
    print("Condition Met")
else:
    print("Condition Not Met")
```

A) Condition Met

B) Condition Not Met

C) Syntax Error

D) None of the above

Q2. Which of the following conditions will evaluate to True?

```
x = 7
y = 3
```

A) (x > 5 and y < 5)

B) (x < 5 or y > 10)

C) (x == 7 and not y == 3)

D) (x < 0 or y > 0 and x > 5)

Q3. What does the following expression evaluate to?

```
(True and False) or not False
```

A) True

B) False

C) None

D) Error

Q4. What is the correct way to use `and`, `or`, and `not` together?

A)
```
if x > 5 and not (y == 3) or z == 10:
```

B) `if x > 5 not and (y == 3) or z == 10:`

C) `if x > 5 or not y == 3 and z == 10:`

D) `if (x > 5 and not y == 3) or z == 10:`

Practical Questions

Q5. Write a Python program that asks a user for their age and income. If the age is greater than 18 **and** the income is above 50,000, print "Eligible"; otherwise, print "Not Eligible".

Q6. Given three boolean variables `A`, `B`, and `C`, write a Python script to evaluate the following condition and print "Condition Passed" if true, otherwise print "Condition Failed":

- `(A and not B) or C`

Q7. Modify the following code to ensure it only prints "Access Granted" when the user has either an admin role OR a premium membership, but is NOT under the age of 18:

```
role = "admin"
membership = "premium"
age = 17
if role == "admin" or membership == "premium" and not age < 1
8:
    print("Access Granted")
```

```
else:
    print("Access Denied")
```

Q8. Write a Python function `is_valid_temperature(temp, unit)` that takes a temperature value and a unit ('C' for Celsius, 'F' for Fahrenheit). The function should return `True` if:

- The temperature is between 0 and 100 degrees Celsius **or** between 32 and 212 degrees Fahrenheit.
  Otherwise, return

  `False`.