

Ultra Academy

Python

Time: 2 hours

Total Marks - 50

Group A

(Multiple Choice Questions) Marks Allotted : 20

Answer any twenty from the following question (1*10 = 20)

1. Which is the correct operator for power(x_y)?

- a) X^y
- b) $X^{**}y$
- c) $X^{^^}y$
- d) None of the mentioned

2. What will be the output of the following code snippet?

```
print(type(5 / 2))  
print(type(5 // 2))
```

- a) float and int
- b) int and float
- c) float and float
- d) int and int

3. Which of the following is used to define a block of code in Python language?

- a) Indentation
- b) Key
- c) Brackets
- d) All of the mentioned

4. What is the output of the following program ?

```
n=5
i = 0
while i >=5:
    print("Python")

    print("Java")
```

- a) Java
- b) Python
Python
Python
Python
Python
- c) Python
Python
Python
Python
Python
Java
- d) Python
Java

5 . Which of the following characters is used to give single-line comments in Python?

- a) //
- b) #
- c) !
- d) /*

6. What will be the output of the following Python code?

```
i = 1
while True:
    if i%3 == 0:
        break
    print(i)

    i += 1
```

- a) 1 2 3
- b) error
- c) 1 2
- d) none of the mentioned

7. What is output of the following Program

```
A , B = 12 , 13
C = A
A = B
B = C
print(A,B,C)
```

- a) 12 13 12
- b) 12 12 13
- c) 13 13 12
- d) 13 12 12

8. Which of the following statements is used to create an empty list in Python?

- a) list()
- b) []
- c) { }
- d) both a and b

9 . What are the values of the following Python expressions?

```
2 ** (3 ** 2)
(2 ** 3) ** 2
2 ** 3 ** 2
```

- a) 512, 64, 512
- b) 512, 512, 512
- c) 64, 512, 64
- d) 64, 64, 64

10 . What will be the output of the following Python function?

```
num = [0,2,3,4,2]

print(num[:])
```

- a) Error
- b) [0,2,3,4,2]
- c) []

d) [0]

Group B

(Programs Type Questions) Marks Allotted : 40

Answer any six from the following question (5*8 = 40)

- 1) Write a Program to check if the given number is Prime or not.
- 2) Display Fibonacci series up to given terms
- 3) Write a function to calculate the cube of all numbers from 1 to a given number
- 4) Reverse a given integer number
- 5) Write a Program to check if the given number is palindrome or not.

Palindrome number in java: A **palindrome number** is a *number that is same after reverse*. For example 545, 151, 34543, 343, 171, 48984 are the palindrome numbers. It can also be a string like LOL, MADAM etc.

6 . Write a Program to check if the given number is PalPrime or not .

A **palindromic prime** (sometimes called a **palprime**) is a prime number that is also a palindromic number.

Example : 121

7. A school has following rules for grading system:

- a) Below 25 - F
- b) 25 to 45 - E
- c) 45 to 50 - D
- d) 50 to 60 - C
- e) 60 to 80 - B
- f) Above 80 - A
- g) IF the entered marks is negative print : Marks should be positive
- h) If the entered marks is more than 100 print : marks should be less than 100

8. Print the series $1^1+1 + 2^2+1 + 3^3+1 + \dots N+n+1$

9. Find the greatest among two 3 numbers,take the user input.