OSCAR COMPUTER

M3-R5 Programming and Problem Solving Through Python

Time: 1 Hours MM: 50 marks

1. Python is known as:
   a. A compiled language
   b. A machine language
   c. An interpreted language
   d. An assembly language
2. Which version of python removed the print statement?
   a. Python 1.x
   b. Python 3.x
   c. Python 2.x
   d. Python 4.x
3. Which of the following is a valid Python comment?
   a. <!---------->
   b. #
   c. /* */
   d. //
4. Which of these data types does Python not natively support?
   a. Lists
   b. Arrays
   c. Tuples
   d. Dictionaries
5. Which of the following is a mutable data type in Python?
   a. String
   b. List
   c. Tuples
   d. Integer
6. What is the output of the following code snippet:
   print(type("Hello, World!"))
   a. <class 'str'>
   b. <class 'list'>
   c. <class 'int'>
   d. <class 'tuple'>
7. Which function is used to read input from the console in Python?
   a. input()
   b. Scanf()
   c. read()
   d. getinput()
8. What is the output of print("Hello", end='@'); print("World")
   a. HelloWorld
   b. Hello World
   c. Hello@World
   d. Hello@ World
9. Pseudocode: Ask user for number, multiply by 2, print result
   a. Reads number, print double
   b. Error in input
   c. Reads string, print same
   d. No output
10. Identify the error: print("Hello World!"))
    a. Missing quotation marks
    b. Missing parenthesis
    c. Extra parenthesis
    d. No error
11. What is the purpose of an if statement in Python?
    a. To loop through a sequence
    b. To define a function
    c. To execute a block conditionally
    d. To handle exceptions
12. In Python, which keyword is used to check additional conditions if the previous conditions fail?
    a. elif
    b. then
    c. else if
    d. switch

13. Which of the following is a valid conditional statement in Python?
    a. if a=5
    b. if a<>5
    c. if a==5
    d. if (a=5)
14. What is the use of a for loop in Python?
    a. To repeat a block a fixed number of times
    b. To declare a variable
    c. To check a condition
    d. to handle exceptions
15. Which statement immediately terminates a loop in Python?
    a. break
    b. exit
    c. continue
    d. stop
16. In a while loop, what happens if the condition never becomes False?
    a. The loop runs forever
    b. Syntax error
    c. the loop stops after 10 iterations
    d. the loop does not start
17. What is the difference between a for loop and a while loop in Python?
    a. for is used for fixed iterations
    b. for cannot used conditional statements
    c. while is faster than for
    d. there is no difference
18. How do you access the last element of a list named myList?
    a. myList[0]
    b. myList[len(myList)]
    c. myList[-1]
    d. myList[-2]
19. In Python, how can you combine two lists, list1 and list2?
    a. list1 + list2
    b. list1.combine(list2)
    c. list1.append(list2)
    d. list1.extend(list2)
20. What does myList[::-1] do?
    a. Reverses myList
    b. Remove the last element from myList
    c. copies myList
    d. sorts myList in descending order
21. What is the result of the following code? myList = [1, 2, 3]; myList[1] = 4; print(myList)
    a. [1,2,3]
    b. Error
    c. [1,4,3]
    d. [4,2,3]
22. Python is a:
    a. Low -level language
    b. Middle -level language
    c. High – level language
    d. Machine – level language
23. What data type would you use to store a whole number in Python?
    a. int
    b. str
    c. float
    d. bool
24. Which of the following is not a Python built-in data type?
    a. dict
    b. set
    c. array
    d. frozenset
25. What will be the data type of the variable x after this assignment: x=3.5
    a. Int
    b. str
    c. float
    d. complex
26. Which of the following is an immutable data type?
    a. Lists
    b. Tuples
    c. dictionaries
    d. Sets

27. What does the following code output: x = [1, 2, 3]; print(type(x) == list)
    a. TRUE
    c. FALSE
    b. Error
    d. None
28. What will be the output of the following pseudocode?
    Initialize x as 10; If x is of type int, print "Integer" else print "Not Integer"
    a. Integer
    c. Not Integer
    b. Error
    d. None
29. Identify the error in this code: x = [1, 2, 3]; print(x)
    a. Syntax error in variable x
    c. missing parenthesis in print
    b. Missing bracket in x
    d. No error
30. What is the default type of data returned by the input() function in Python 3.x?
    a. int
    c. string
    b. boolean
    d. list
31. What is the purpose of the end parameter in the print() function?
    a. To add space at the end
    c. to end the script
    b. To specify the string appended after the last value
    d. to break the line
32. What will be the output of: print("Python", "Programming", sep="-")
    a. Python – Programming
    c. Python Programming
    b. PythonProgramming
    d. Python,Programming
33. Pseudocode: Print each element in list [1, 2, 3] with a space in between
    a. 123
    c. 37623
    b. [1,2,3]
    d. 321
34. Pseudocode: Initialize a variable with "Python", print first and last character
    a. Prints “Pn”
    c. Prints “Py”
    b. Prints “Python”
    d. Error
35. Find the mistake: user_input = input("Enter a number: "); print("You entered: ", int(user_input))
    a. Syntax error
    c. No error
    b. Int() should be str()
    d. input() function used incorrectly
36. What is the outcome if the elif and else blocks are missing in an if statement?
    a. Syntax error
    c. the program will stop
    b. Nothing, it is optional
    d. Runtime error
37. What will the following code print?

```
i = 5
while i > 0:
    print(i)
    i - = 1
```

    a. 5 4 3 2 1
    c. 5 4 3 2
    b. 1 2 3 4 5
    d. infinite loop
38. What is the main difference between a list and a tuple in Python?
    a. Syntax
    c. Data type
    b. Mutability
    d. Method of declaration
39. How is memory allocation for lists and tuples different in Python?

a. Lists use more memory than tuples
c. Tuples uses more memory than lists
b. Both use the same amount of memory
d. Memory uses in random and unpredictable

40. Find the mistake: import math; print(math.sqr(4))
a. Incorrect module
c. incorrect function name
b. Wrong number of arguments
d. no error

41. How do you make a string lowercase in Python?
a. string.lower()
c. string.tolower()
b. string.lowercase()
d. lower(string)

42. Which loop is guaranteed to execute at least once in Python?
a. for loop
c. while loop
b. both
d. None

43. How do you skip to the next iteration in a loop?
a. next
c. skip
b. continue
d. exit

44. Which of the following is the correct syntax for an infinite loop in Python?
a. while True:
c. for i in range (10)
b. while x:
d. None of these

45. What is the purpose of the else clause in a loop in Python?
a. It is used to terminate the loop early
c. It is used to define a new loop
b. It executes if the loop completes without a break
d. None of these

46. Which function can be used to return the length of a string in Python?
a. length()
c. len()
b. size()
d. lengthof()

47. Which method can be used to remove all elements from a list in Python?
a. x.clear()
c. x.delete()
b. x.remove_all()
d. x.reset()

48. Which one of the following is not a keyword in Python language?
a. pass
c. assert
b. eval
d. nonlocal

49. What arithmetic operators cannot used with strings in Python?
a. *
c. –
b. +
d. all of these

50. What is the maximum possible length of an identifier?
a. 31
c. 63
b. 79
d. none of the these