उम्मीदवार इस पुस्तिका के सबसे ऊपरी सील को खोलकर पृष्ठ संख्या 2 और 3 के मध्य सथापित OMR उत्तर शीट को निकाल लें। Candidates should open the top side of the seal of this Booklet and take out the OMR Answer Sheet placed between page no. 2 and 3.

परीक्षा पुस्तिका सं. :
Test Booklet No. :

# A3-R5 : Programming and Problem Solving Through Python Language SET-01 

निर्धारित समय : 3 घंटे Time Allowed : 3 Hours

Roll No. :


उत्तर शीट सं. प्रश्नों के उत्तर देने से पहले निम्नलिखित अनुदेशों को ध्यान से पढ़ लें ।/ Read the following instructions carefully before you begin to answer the questions.

## उम्मीदवारों के लिए अनुदेश

1. प्रश्नों के उत्तर लिखना आरंभ करने से पहले आप इस पुस्तिका की जाँच करके सुनिश्चित कर लें कि इसमें पूरे पृष्ठ (12) हैं तथा कोई पृष्ठ या उसका भाग कम या दुबारा तो नहीं आ गया है। यदि आप इस पुस्तिका में कोई त्रुटि पाएं, तो तत्काल इसके बदले दूसरी पुस्तिका ले।
2. ओएमआर उत्तर-शीट प्रश्न पुस्तिका में ही उपलब्ध रहेगी। कृपया सुनिश्चित करें कि ओएमआर शीट संख्या और परीक्षण पुस्तिका संख्या समान हैं। ओएमआर शीट पर जानकारी भरने से पहले ओएमआर शीट पर छपे निर्देशों को ध्यान से पढें। आपको ओएमआर उत्तर-पत्रक पर सभी विवरणों को सही ढंग से पूरा और कोड करना होगा, ऐसा न करने पर आपकी उत्तर पुस्तिका का मूल्यांकन नहीं किया जा सकता है। प्रश्नों का उत्तर देना शुरू करने से पहले आपको ओएमआर उत्तर-पत्रक पर दिये गए निर्धारित स्थान पर अपने हस्ताक्षर करने होंगे। इन निर्देशों का पूर्ण रूप से पालन किया जाना चाहिए, ऐसा न करने पर आपकी ओएमआर उत्तर-पुस्तिका का मूल्यांकन नहीं किया जा सकता है।
3. इस पुस्तिका में कुल 100 बहुविकल्पीय प्रश्न हैं जो कि केवल इंग्लिश भाषा में उपलब्ध है। प्रत्येक प्रश्न के 4 विकल्प दिए गए हैं, (A), (B), (C) और (D)। किसी भी स्थिति में प्रत्येक प्रश्न का केवल एक विकल्प ही सही उत्तर है। यदि आपको एक से अधिक विकल्प सही लगें तो सबसे अधिक उचित एक विकल्प का चुनाव करें और उत्तर शीट में सम्बंधित प्रश्न के सामने वाले उपयुक्त गोले को काला करें।
4. प्रत्येक सही उत्तर के लिए 1 अंक दिया जाएगा। गलत उत्तर के लिए कोई नकारात्मक अंकन नहीं है।
5. गोले को काला करने के लिए केवल काले/नीले बॉल प्वाइंट पेन का प्रयोग करें। गोले को एक बार काला करने के बाद इसको मिटाने या बदलने की अनुमति नहीं है। यदि किसी प्रश्न के सामने एक से ज्यादा गोले काले किये गए हों तो मशीन द्वारा उसके लिए शून्य अंक दिया जाएगा।
6. किसी भी स्थिति में उत्तर शीट को न मोड़ें।
7. उत्तर-पुस्तिका पर कोई भी रफ कार्य नहीं करना है। रफ कार्य के लिए इस पुस्तिका में स्थान दिया गया है।
8. परीक्षा हॉल/कमरों में मोबाइल फ़ोन तथा बेतार संचार साधन पूरी तरह निषिद्ध हैं। उम्मीदवारों को उनके अपने हित में सलाह दी जाती है कि मोबाइल फ़ोन/किसी अन्य बेतार संचार साधन को स्विच ऑफ करके भी अपने पास न रखें। इस प्रावधान का अनुपालन न करने को परीक्षा में अनुचित उपायों का प्रयोग माना जायेगा और उनके विरुद्ध कार्यवाही की जाएगी, जिसमें उनकी उम्मीदवारी रद्द करना भी शामिल है।
9. अभ्यर्थी अपनी उत्तर पुस्तिका पर्यवेक्षक को सौंपे बिना और अपने रोल नंबर के सामने उचित स्थान पर उपस्थिति पत्रक पर हस्ताक्षर किए बिना परीक्षा हॉल/कक्ष से बाहर नहीं जा सकता। इसके अलावा अभ्यर्थी को उपस्थिति पत्रक पर हस्ताक्षर करने से पहले यह भी सुनिश्चित करना चाहिए कि बुकलेट नंबर, बुकलेट सीरीज और ओएमआर उत्तर पुस्तिका संख्या सही ढंग से लिखी गई हो। ऐसा ना करने पर, ओएमआर उत्तर पुस्तिका को अमान्य माना जाएगा/मूल्यांकन नहीं किया जा सकता है।

## Instructions to the Candidates

1. Before you start to answer the questions you must check this booklet and ensure that it contains all the pages (12) and see that no page or portion thereof is missing or repeated. If you find any defect in this Booklet, you must get it replaced immediately.
2. OMR Answer-Sheet is within the Question Booklet. Please ensure OMR Answer-Sheet number and Test Booklet No. of Question Paper are same. Read the instructions printed on OMR Answer-Sheet carefully before filling the information on the OMR Answer-Sheet. You must complete and code all the details on the OMR answer sheet correctly, failing which your answer sheet may not be evaluated. You must also put your signature on the OMR Answer-Sheet at the prescribed place before you start answering the questions. These instructions must be fully complied with, failing which, your OMR Answer-Sheet may not be evaluated.
3. This booklet consists of 100 Multiple Choice Questions and are printed in English language only. Each question has 4 (four) alternatives (A), (B), (C) and (D). In case if you find more than one correct answer, then choose the most appropriate single option and darken the appropriate circle in the answer sheet against the related question.
4. For each correct answer One mark will be given and no negative marking for incorrect answer.
5. Use Black/Blue ball point Pen to darken the circle. Answer once darkened is not allowed to be erased or altered. Against any question if more than one circle is darkened, machine will allot zero mark for thatquestion.
6. Do not fold answer sheet in any case.
7. No rough work should be done on the Answer-Sheet. Space for rough work has been provided in this booklet.
8. Mobile phones and wireless communication devices are completely banned in the examination hall/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even in switched off mode, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.
9. Candidate should not leave the examination hall/room without handing over his/her Answer-Sheet to the invigilator and without signing on the attendance sheet at proper place against your roll number. Further candidate should also ensure that booklet no., booklet series and OMR AnswerSheet No. are correctly written on attendance sheet before signing on it, failing in doing so, may lead to disqualification/ no evaluation of OMR Answer-Sheet will be done.

जब तक आपसे कहा न जाए तब तक प्रश्न-पुस्तिका न खोलें / DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.

1. Which of the following number can never be generated by the following code: random.randrange $(0,50)$
(A) 0
(B) 1
(C) 49
(D) 50
2. Which statement will read 5 characters from a file(file object ' f ')?
(A) f.read()
(B) f.read(5)
(C) f.reads(5)
(D) None of the above
3. What is the output of following code?
$\mathrm{a}=\operatorname{set}\left({ }^{\prime} a b c^{\prime}\right.$ )
$b=\operatorname{set}\left({ }^{\prime}{ }^{c d}{ }^{\prime}\right)$
$\operatorname{print}\left(\mathrm{a}^{\wedge}(\mathrm{B})\right.$
(A) $\{a, b, c, d\}$
(B) $\left\{{ }^{\prime} c^{\prime},{ }^{\prime} b^{\prime},{ }^{\prime} a^{\prime}, ~ ' d '\right\}$
(C) $\left\{{ }^{\prime} b^{\prime},{ }^{\prime} a^{\prime},{ }^{\prime} d^{\prime}\right\}$
(D) None of these
4. Which of the following operators has the highest precedence?
(A) \&
(B) *
(C) not
(D) +
5. What will be the output of the following Python code
from math import factorial
print(math.sqrt(25))
(A) 5.0
(B) Nothing is printed
(C) Error, method sqrt doesn't exist in math module
(D) Error, the statement should be: print(sqrt(25))
6. Choose the option for statement 3.
import $\qquad$ \# statement 1
rec $=[$ ]
while True:
rn $=\operatorname{int}($ input("Enter") )
nm = input("Enter")
temp $=[\mathrm{rn}, \mathrm{nm}]$
rec.append(temp)
ch $=\operatorname{input}(" E n t e r$ choice $(\mathrm{Y} / \mathrm{N})$ ")
if ch.upper $==$ " $N$ ":
break
$\mathrm{f}=$ open("stud.dat", " $\qquad$ ")
\#statement 2
$\qquad$ .dump(rec, f) \#statement 3
_.close( ) \# statement 4
(A) unpickle
(B) pickle
(C) write
(D) None of the above
7. $\qquad$ immediately terminates a loop entirely.
(A) break
(B) continue
(C) pass
(D) none of these
8. The operation represented by a parallelogram is called as $\qquad$ .
(A) Input/Output
(B) Comparison
(C) Assignment
(D) Conditions
9. What is the output when we execute list("hello") ?
(A) ['h', 'e', ' 1 ', ' 1 ', 'o']
(B) $\left[{ }^{\prime}\right.$ hello' $]$
(C) ['1lo']
(D) ['olleh']
10. Which keyword is used for function?
(A) fun
(B) $\operatorname{def}$
(C) define
(D) function
11. Which one of the following is immutable data type?
(A) list
(B) set
(C) tuple
(D) dict
12. What is the output of the following?
$\mathrm{x}=$ 'abcd'
for $i$ in range(len(x)):
i.upper()
print (x)
(A) $a b c d$
(B) 0123
(C) error
(D) none of the mentioned
13. Which one of the following is the correct way of calling a function?
(A) function_name()
(B) call function_name()
(C) ret function_name()
(D) function function_name()
14. To repeat a particular task, we use
$\qquad$ -
(A) Input
(B) Loop
(C) Output
(D) Condition
15. What will be the output of following code?
$\mathrm{x}=\left[{ }^{\prime} \mathrm{XX}{ }^{\prime},{ }^{\prime} \mathrm{Y} Y^{\prime}\right]$
for $i$ in $x$
i.lower()
print( x )
(A) ['XX', 'YY']
(B) $\left[{ }^{\prime} x x^{\prime}, ' y y^{\prime}\right]$
(C) $[X X, Y Y]$
(D) None of the above
16. What is the output of the following code print(bool(0), bool(3.14159), bool(-3), $\operatorname{bool}(1.0+1 \mathrm{j}))$
(A) True True False True
(B) False True False True
(C) False False False True
(D) False True True True
17. Choose the answer for statement 1.
import $\qquad$ \# statement 1
rec $=[$ ]
while True:
rn $=\operatorname{int}($ input("Enter"))
nm = input("Enter")
temp $=[\mathrm{rn}, \mathrm{nm}]$
rec.append(temp)
ch $=\operatorname{input}(" E n t e r$ choice $(\mathrm{Y} / \mathrm{N})$ ")
if ch.upper $==$ " N ":
break
$\mathrm{f}=$ open("stud.dat", " $\qquad$ ")
\#statement 2
$\qquad$ .dump(rec, f) \#statement 3
$\qquad$ .close( )\# statement 4
(A) csv
(B) load
(C) pickle
(D) unpickle
18. What does os.getlogin() return?
(A) name of the current user logged in
(B) gets a form to login as a different user
(C) name of the superuser
(D) all of the above
19. In which data type, indexing is not valid?
(A) list
(B) dictionary
(C) string
(D) None of the above
20. What is the output of following code?
$a 1=\left\{1:{ }^{\prime \prime} A^{\prime \prime}, 2:\right.$ " $\left.^{\prime \prime}, 3:{ }^{\prime \prime} C^{\prime \prime}\right\}$
b1 = $\left\{4::^{\prime \prime} D^{\prime \prime}, 5::^{\prime \prime} E^{\prime \prime}\right\}$
b1.update(a1)
print(b1)
(A) $\left\{4\right.$ : ' $\mathrm{D}^{\prime}, 5$ : ' $\mathrm{E}^{\prime}, 1$ : ' $\mathrm{A}^{\prime}, 2:{ }^{\prime} \mathrm{B}^{\prime}, 3$ : ' C ' $\}$
(B) $\left\{1:{ }^{\prime} \mathrm{A}^{\prime}, 2:{ }^{\prime} \mathrm{B}^{\prime}, 3\right.$ : ' $\mathrm{C}^{\prime}, 4:$ ' $\left.^{\prime} \mathrm{D}^{\prime}, 5:{ }^{\prime} \mathrm{E}^{\prime}\right\}$
(C) $\left\{4:{ }^{\prime} D^{\prime}, 5:{ }^{\prime} E^{\prime}\right\}$
(D) None of these
21. Top-down approach is followed in structural programming.
(A) True
(B) False
(C) Can't say
(D) May be
22. Method which uses a list of well-defined instructions to complete a task starting from a given initial state to end state is called as
(A) Program
(B) Algorithm
(C) Flowchart
(D) Both (A) and (C)
23. Actual instructions in flowcharting are represented in $\qquad$ -.
(A) Circles
(B) Boxes
(C) Arrows
(D) Lines
24. What will following code segment print?
$\mathrm{a}=$ True
b=False
$\mathrm{c}=$ False
if $a$ or $b$ and $c$ :
print "HELLO"
else: print "hello"
(A) HELLO
(B) Hello
(C) HellO
(D) None of these
25. What will be output for the following code? import numpy as $n p$
$\mathrm{a}=\operatorname{np} \cdot \operatorname{array}([11,2,3])$
print(a.min())
(A) 2
(B) 1
(C) 11
(D) 3
26. Which statement will move file pointer 10 bytes backward from current position.
(A) f.seek $(-10,0)$
(B) $f \cdot \operatorname{seek}(-10,1)$
(C) $f \cdot \operatorname{seek}(10,0)$
(D) None of the above
27. Flowcharts and algorithms are used for
(A) Better programming
(B) Efficient coding
(C) Easy testing and debugging
(D) All of the above
28. What are the attributes of numpy array?
(A) shape, dtype, ndim
(B) objects, type, list
(C) objects, non vectorization
(D) Unicode and shape
29. $\qquad$ is part of user documentation.
(A) Class Diagram
(B) Code Comment
(C) Use Case
(D) Installation Guide
30. Which mode creates a new file if the file does not exist?
(A) write mode
(B) append mode
(C) Both (A) \& (B)
(D) None of the above
31. What will be the output of the following pseudo-code?

## Integer a

Set $\mathrm{a}=5$
do

$$
\begin{aligned}
& \text { print } a-2 \\
& a=a-1
\end{aligned}
$$

while (a not equals 0 )
end while
(A) 530
(B) 30
(C) infinite loop
(D) None of these
32. An algorithm represented in the form of programming languages is $\qquad$ .
(A) Flowchart
(B) Pseudo code
(C) Program
(D) None of the above
33. What is the purpose of the following code? import numpy as $n p$
$\mathrm{z}=[1,2,3]$
$\mathrm{y}=\mathrm{np} . \operatorname{array}(\mathrm{z})$
(A) to convert z to array
(B) to convert z to list
(C) Both of the above
(D) None of the above
34. Which function opens file in python?
(A) open()
(B) $\operatorname{Open}()$
(C) new()
(D) None of the above
35. What is the output of the following ?
for $i$ in range(10) :
if $\mathrm{i}==5$ :
break
else:
print(i)
else:
print("Here")
(A) 01234 Here
(B) 012345 Here
(C) 01234
(D) 12345
36. What is the output of the following?

$$
\begin{aligned}
& \mathrm{t}=(2,3,4,3.5,5,6) \\
& \operatorname{print}(\operatorname{sum}(\mathrm{t})+\mathrm{t} . \operatorname{count}(2))
\end{aligned}
$$

(A) 24
(B) 23.5
(C) 24.5
(D) 25.5
37. Which of the following are valid escape sequences in Python?
(A) $\backslash \mathrm{n}$
(B) $\backslash t$
(C) $\backslash \backslash$
(D) All of the above
38. What will be the output of the following algorithm for $a=5, b=8, c=6$ ?
Step 1: Start
Step 2: Declare variables $\mathrm{a}, \mathrm{b}$ and c .
Step 3: Read variables $a, b$ and $c$.
Step 4: If $\mathrm{a}>\mathrm{b}$
If $\mathrm{a}>\mathrm{c}$
Display a is the largest number.
Else
Display c is the largest number.
Else
If $b>c$
Display b is the largest number.
Else
Display c is the greatest number.
Step 5: Stop
(A) b is the largest number
(B) $a$ is the largest number
(C) c is the largest number
(D) stop
39. Choose the option for statement 2. import $\qquad$ \# statement 1
rec $=[$ ]
while True:

$$
\begin{gathered}
\text { rn }=\operatorname{int}(\text { input("Enter")) } \\
\mathrm{nm}=\operatorname{input}(\text { "Enter") } \\
\text { temp }=[\mathrm{rn}, \mathrm{~nm}]
\end{gathered}
$$

rec.append(temp)
ch = input("Enter choice ( $\mathrm{Y} / \mathrm{N}$ )")
if ch.upper $==$ " N ":
break
$\mathrm{f}=$ open("stud.dat", " $\qquad$ ")
\#statement 2
$\qquad$ .dump(rec, f) \#statement 3
$\qquad$ .close( ) \# statement 4
(A) w
(B) wb
(C) $\mathrm{w}^{+}$
(D) write
40. Which of the following function takes two arguments?
(A) $\operatorname{load}()$
(B) $\operatorname{dump}()$
(C) Both of the above
(D) None of the above
41. If a function does not have a return statement, which of the following does the function return?
(A) int
(B) null
(C) An exception is thrown without return
(D) None
42. What will be the output of the following Python code?
defsay (message, times $=1$ ):
print(message * times)
say('Hello')
say ('World', 5)
(A) Hello

WorldWorldWorldWorldWorld
(B) Hello

World5
(C) Hello

World,World,World,World,World
(D) Hello HelloHelloHelloHelloHello
43. A flowchart that outlines the main segments of a program.
(A) Queue
(B) Macro
(C) Micro
(D) Union
44. Which module to be imported to make the following line functional?
sys.stdout.write("ABC")
(A) system
(B) stdin
(C) stdout
(D) sys
45. The function can be called in the program by writing function name followed by $\qquad$
(A) []
(B) $\}$
(C) ()
(D) None of the above
46. Which of the following statement will execute in last?
def $\mathrm{s}(\mathrm{n} 1)$ : \#Statement 1 print(n1) \#Statement 2
n2=4 \#Statement 3
s(n2) \#Statement 4
(A) Statement 1
(B) Statement 2
(C) Statement 3
(D) Statement 4
47. What is the output of $\operatorname{print}\left((-3)^{* *} 2\right)$
(A) -9
(B) 6
(C) 6
(D) 9
48. In which language is Python written?
(A) C
(B) $\mathrm{C}++$
(C) Java
(D) None of these
49. What is the output, if user has entered 55 ? a=input("Enter a number") print(type(a))
(A) int
(B) float
(C) double
(D) str
50. The action performed by a $\qquad$ structure must eventually cause the loop to terminate.
(A) sequence
(B) process
(C) repetition
(D) case
51. Which of the following is not the built-in function?
(A) input()
(B) tuple( )
(C) print( )
(D) dictionary( )
52. In computer science, algorithm refers to a pictorial representation of a flowchart.
(A) True
(B) False
(C) Can't say
(D) May be
53. Determine the output:
for i in range $(20,30,10)$ :
$j=i / 2$
print(j)
(A) 1015
(B) 10.015 .0
(C) 10.0
(D) None of these
54. What is the output of the following code?
$\mathrm{y}=$ "I love Python"
$y[3]=$ 's'
print(y)
(A) snow
(B) snow world
(C) Error
(D) snos world
55. What is the datatype of following object? A = [5,' abc', 3.2, 6]
(A) tuple
(B) array
(C) list
(D) dictionary
56. Any algorithm is a program written according to proper syntax.
(A) True
(B) False
(C) Can't say
(D) May be
57. What is the output of the following code? import numpy as $n p$
$\mathrm{a}=\mathrm{np} . \operatorname{array}([1.1,2,3])$
print(a.dtype)
(A) int32
(B) float64
(C) float
(D) None
58. What will be the output of the following Python code?
def C2F(c):
return $c^{*} 9 / 5+32$
print (C2F(100))
print (C2F(0))
(A) 212.0
32.0
(B) 314

24
(C) 567

98
(D) None of the above
59. Which of the following file can be opened in any text editor?
(A) Binary
(B) text
(C) Both of the above
(D) None of the above

60 The examination of changing values of variables is called stepping.
(A) True
(B) False
(C) Can't say
(D) May be
61. What is the output of following code?
$\mathrm{A}=[[1,2,3]$,
[4, 5, 6],
[7, 8, 9]]
$\operatorname{print}(\mathrm{A}[1][:])$
(A) $[1,2,3]$
(B) $[4,5,6]$
(C) $[2,5,8]$
(D) None of these
62. What is the output of the following?
$\mathrm{i}=2$
while True:

$$
\text { if } \mathrm{i} \% 3=0 \text { : }
$$

break
print(i,end=" " )
i $+=2$
(A) $246810 \ldots$
(B) 24
(C) 23
(D) error
63. What is the output of the following code? import numpy as $n p$
$\mathrm{a}=\mathrm{np} . \operatorname{array}([[1,2,3],[4,5,6],[7,8,9]])$ print(a.shape)
(A) $(2,3)$
(B) $(3,3)$
(C) $(1,1)$
(D) None of these
64. What is full form of CSV?
(A) Comma Separation Value
(B) Comma Separated Variable
(C) Comma Separated Values
(D) Common Syntax Value
65. Which statement will return one line from a file (file object is ' f ')?
(A) f.readlines()
(B) f.readline()
(C) f.read()
(D) f.line()
66. Ravi opened a file in python using open( ) function but forgot to specify the mode. In which mode the file will open?
(A) write
(B) append
(C) read
(D) Both read and write
67. what will be the output of the following Python code?
defsayHello(): print('Hello World!')
sayHello()
sayHello()
(A) Hello World!

Hello World!
(B) 'Hello World!'
'Hello World!'
(C) Hello

Hello
(D) None of the above
68. Suppose a tuple arr contains 10 elements. How can you set the 5th element of the tuple to 'Hello' ?
(A) $\operatorname{arr}[4]=$ 'Hello'
(B) $\operatorname{arr}(4)=$ 'Hello'
(C) Elements of tuple cannot be changed
(D) $\operatorname{arr}[5]=$ 'Hello'
69. What will be the output of the following Python code?
from math import *
ceil(3.4)
(A) 4
(B) 3
(C) 3.5
(D) None of these
70. What will be output for the following code? import numpy as np
$\mathrm{a}=\mathrm{np} . \operatorname{array}([1,2,1,5,8])$
$\mathrm{b}=\mathrm{np} . \operatorname{array}([0,1,5,4,2])$
$\mathrm{c}=\mathrm{a}+\mathrm{b}$
$c=c^{*} a$
print (c[2])
(A) 6
(B) 10
(C) 0
(D) None of these
71. What will be the output of the following Python code?
$\min (\max ($ False,-3,-4), 2,7)
(A) -4
(B) -3
(C) 2
(D) False
72. Which attribute is used to find the data type of numpy array?
(A) type(array)
(B) dtype
(C) objects.type(array)
(D) numpy(type)
73. What will be the output of the following? import numpy as np print(np.minimum([2, 3, 4], $[1,5,2])$ )
(A) $\left[\begin{array}{lll}1 & 2 & 5\end{array}\right]$
(B) $\left[\begin{array}{lll}1 & 5 & 2\end{array}\right]$
(C) $\left[\begin{array}{lll}2 & 3 & 4\end{array}\right]$
(D) $\left[\begin{array}{lll}1 & 3 & 2\end{array}\right]$
74. Which statement is correct to import all modules from the package ?
(A) from package import all
(B) from package import *
(C) from package include all
(D) from package include *
75. What will be the output of the following Python code?
$x=50$
deffunc(x):
print(' $x$ is', $x$ )
$x=2$
print('Changed local $x$ to', $x$ )
func (x)
print(' $x$ is now', $x$ )
(A) x is 50

Changed local $x$ to 2
$x$ is now 50
(B) x is 50

Changed local $x$ to 2
$x$ is now 2
(C) $x$ is 50

Changed local x to 2
$x$ is now 100
(D) None of the mentioned
76. $\qquad$ is a connector showing the relationship between the representative shapes.
(A) Line
(B) Arrow
(C) Process
(D) Box
77. Software mistakes during coding are known as
(A) errors
(B) bugs
(C) failures
(D) defects
78. Which of the following is not a keyword in python?
(A) return
(B) in
(C) False
(D) false
79. What is the output of the following ?
$\mathrm{x}=$ 'abcd'
for i in range( x ) :
print(i)
(A) abcd
(B) 0123
(C) error
(D) none of the mentioned
80. NumPY stands for?
(A) Numbering Python
(B) Number In Python
(C) Numerical Python
(D) None of the above
81. Which of the following is the use of function in python?
(A) Functions are reusable pieces of programs
(B) Functions don't provide better modularity for your application
(C) you can't also create your own functions
(D) All of the mentioned
82. Which of the following items are present in the function header ?
(A) function name
(B) parameter list
(C) return value
(D) Both (A) and (B)
83. Fill in the blank

Import pickle
$\mathrm{f}=$ open("data.dat", 'rb')
$\mathrm{d}=$ $\qquad$ .load(f)
f.close()
(A) unpickle
(B) pickling
(C) pickle
(D) pick
84. Which of these definitions correctly describes a module?
(A) Denoted by triple quotes for providing the specification of certain program elements
(B) Design and implementation of specific functionality to be incorporated into a program
(C) Defines the specification of how it is to be used
(D) Any program that reuses code
85. What will be the output of the following pseudocode, where represent XOR operation ?
Integer $a, b, c$
Set $b=5, a=1$
$c=a^{\wedge} b$
Print c
(A) 4
(B) 3
(C) 5
(D) 7
86. What is the output of the following code? import numpy as $n p$
$\mathrm{a}=\mathrm{np} \cdot \operatorname{array}([[1,2,3]])$
print(a.ndim)
(A) 1
(B) 2
(C) 3
(D) 0
87. How to copy one list to another in Python?
(A) $\mathrm{a} 1=\operatorname{list}(\mathrm{a} 2)$
(B) $\mathrm{a} 1=\mathrm{a} 2 \cdot \operatorname{copy}()$
(C) $a 1[]=a 2[:]$
(D) All of these
88. Identify the correct function header
(A) deffun $(a=2, b=3, c)$
(B) deffun $(a=2, b, c=3)$
(C) deffun(a, b=2, c=3)
(D) deffun( $\mathrm{a}, \mathrm{b}, \mathrm{c}=3, \mathrm{~d}$ )
89. Hierarchy in a pseudo-code can be shown by:
(A) Curly Braces
(B) Round Brackets
(C) Indentation
(D) Semicolon
90. Which one of the following is correct?
(A) Dictionary can have two same keys with different values
(B) Dictionary can have two same values with different keys
(C) Dictionary can have two same keys or same values but cannot have two same key-value pair
(D) Dictionary can neither have two same keys nor two same values
91. Which of the following is true for variable names?
(A) unlimited length
(B) limited length
(C) ampersand can be used in its name
(D) None of the above
92. Python is a case sensitive language when dealing with identifiers.
(A) True
(B) False
(C) Sometimes
(D) Never
93. What will be the output of following code? import math
abs(math.sqrt(36))
(A) Error
(B) 6
(C) -6
(D) 6.0
94. What is the output of the following code $a=50$
$\mathrm{b}=\mathrm{a}=\mathrm{a} * 5$
print((b)
(A) 250
(B) 10
(C) 50
(D) Syntax Error
95. A $\qquad$ scans the entire program and translates it as a whole into machine code.
(A) Compiler
(B) Interpreter
(C) Debugger
(D) None of the above
96. In python, which of the following functions is a built-in function?
(A) val( )
(B) print( )
(C) func_k( )
(D) None of these
97. What is the output of the following code
$a=15$
$b=6$
print( $a$ and $b$ )
print( $a$ or $b$ )
(A) True True
(B) FalseFalse
(C) 615
(D) $15 \quad 6$
98. Let us assume 4 is 100 in binary and 11 is 1011. What is the output of the following bitwise operators?
$\mathrm{a}=4$
$b=11$
print(a | (b)
print(a >> 2)
(A) 15
(B) 14
1
1
(C) 17
(D) 16
2
2
99. What is the output of the below program? def func( $a, b=5, c=10)$ :
$\operatorname{print}($ ' $a$ is', $a$, 'and b is', b, 'and c is', c)
func $(3,7)$

$$
\begin{aligned}
& \operatorname{func}(25, c=24) \\
& \operatorname{func}(c=50, a=100)
\end{aligned}
$$

(A) a is 7 and $b$ is 3 and $c$ is 10
a is 25 and $b$ is 5 and $c$ is 24
$a$ is 5 and $b$ is 100 and $c$ is 50
(B) a is 3 and $b$ is 7 and $c$ is 10
a is 5 and $b$ is 25 and $c$ is 24
$a$ is 50 and $b$ is 100 and $c$ is 5
(C) a is 3 and $b$ is 7 and $c$ is 10
a is 25 and $b$ is 5 and c is 24
a is 100 and $b$ is 5 and $c$ is 50
(D) None of the mentioned
100. Choose the option for statement 4.
import $\qquad$ \# statement 1
rec $=[$ ]
while True:
rn $=\operatorname{int}($ input("Enter") )
nm = input("Enter")
temp $=[\mathrm{rn}, \mathrm{nm}]$
rec.append(temp)
ch = input("Enter choice (Y/N)")
if ch.upper $==$ " $N$ ":
break
$\mathrm{f}=$ open("stud.dat", " $\qquad$ ")
\#statement 2
$\qquad$ .dump(rec, f) \#statement 3
$\qquad$ .close( ) \# statement 4
(A) f
(B) rec
(C) file
(D) stud

