KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
CUMULATIVE EXAMINATION (2022 – 23)
INFORMATICS PRACTICES (065)
CLASS: XI

M.M.: 70 **TIME: 3 HRS**

General Instructions:

- This question paper contains five sections, Section A to E.
- All questions are compulsory.
- Section A have 18 questions carrying 01 mark each.
- Section B has 07 Very Short Answer type questions carrying 02 marks each.
- Section C has 05 Short Answer type questions carrying 03 marks each.
- Section D has 03 Long Answer type questions carrying 05 marks each.
- Section E has 02 questions carrying 04 marks each. One internal choice is given in Q35 against part c only.
- All programming questions are to be answered using Python Language only.

	SECTION A	
1.	For a list containing n elements, what will be the index of last element?	1
2.	Name two immutable data types.	1
3.	Name any Two types of Tokens with one example of each.	1
4.	Internal Memory is composed of _____ and _____.	1
5.	Write python statement to assign an empty list to a variable L1.	1
6.	What is the use of escape sequences?	1
7.	What will be the output of following statement: print(len((1, (2, (3, 4)), 5)))	1
8.	Who developed python programming language?	1
9.	Name the function that will be used to add a new element at the end of a list.	1
10.	Help Ramya to update the following program such that the output comes in a single line as 1 2 3 4 5. for k in range(1, 6): print(k)	1
11.	Identify the valid identifier from the following: True, False, Break, None	1
12.	Briefly explain the need of iterative statements in a python program.	1
13.	List any two features of Python Language.	1

14.	What will this code print?
	a = True
	if a:
	print(“A”)
	else:
	print(“B”)
	print(“C”)
		1

15.	List any two input and two output devices.	1
16.	Name the Volatile and Non-Volatile components of main memory.	1
	Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as i. Both A and R are true and R is the correct explanation for A ii. Both A and R are true and R is not the correct explanation for A iii. A is True but R is False iv. A is false but R is True	
17.	**Assertion (A):** The entire working of a computer system is known as IPO (Input-Process-Output) cycle. **Reason (R):** Input devices are used to enter data into computer. The output devices are connected to a computer system to produce result on the computer screen or paper.	1
18.	**Assertion (A):** In Python, the List is an immutable collection of data. **Reason (R):** It means that any change or alteration in data, is maintained in the same place. The updated collection will use the same address for its storage.	1
	SECTION B	
19.	Differentiate between System Software and Application Software	2
20.	What will be the output of the following python statements? a, b, c = 10, 40, 20 a, c, b = b+10, a+20, c-10 print(a, b, c) print(a+b//c**2)	2
21.	Evaluate (to true or false) each of the following expression: (a) 14 <= 14 (b) 14 < 14 (c) -14 > -15 (d) -15 >= 15	2

22.	Find out the errors and rewrite the correct code:
	a=15
	b=32
	if (a<=b):
	print(A)
	else:
	print("c="a+b)
	if (a>=b):
	print(a*a)
	else
	print("c=",(a+b)x(a-b))
		2

23.	Differentiate Primary and Secondary Memory.	2

24.	Predict the output of the following Code:
	m=2
	b=11
	for a in range(m,m+10,2):
	if(b>0):
	print(m)
	else:
	print(m*m)
	b=b-5
		2

25.	List any FOUR built in functions used to perform operations on Lists	2

<table>
<tr><td></td><td>SECTION C</td><td></td></tr>
<tr><td>26.</td><td>Write python code to convert the time given in minutes (taken as input from user) into hours and minutes e.g. if input is 270 minutes, output should be 4 hours 30 mins.</td><td>3</td></tr>
<tr><td>27.</td><td>Differentiate between ‘del’ keyword and pop () function. Also give example python statements.</td><td>3</td></tr>
<tr><td>28.</td><td>Name a System or Application Software for each of the description given below:
a) It is a web browser.
b) It is also referred to as a language translator that converts an assembly language code into machine code.
c) It is a software that is used to manage various resources of a computer system.</td><td>3</td></tr>
<tr><td>29.</td><td>Write a program to calculate factorial of a given natural number.</td><td>3</td></tr>
<tr><td>30.</td><td>In an examination, the grades are awarded to the students in “Presentation” according to the marks obtained as given below:
<table>
<tr><td>Marks</td><td>Grades</td></tr>
<tr><td>80% and above</td><td>Distinction</td></tr>
<tr><td>60% or more but less than 80%</td><td>First Division</td></tr>
<tr><td>45% or more but less than 60%</td><td>Second Division</td></tr>
<tr><td>30% or more but less than 45%</td><td>Pass</td></tr>
<tr><td>Less than 30%</td><td>Grade not Awarded</td></tr>
</table>
Write a python code to input Marks of a student and display the grade obtained.</td><td>3</td></tr>
<tr><td></td><td>SECTION D</td><td></td></tr>
<tr><td>31.</td><td>Lists L1 and L2 with some elements are given for your reference:
L1: [1, 2, [3, “CBSE”, 4], “Python”] L2: [2,3]
Write the values for each of the expressions given below:
a) L1[3]
b) L1[2:2]
c) 2 in L1
d) L1[2][1]
e) L1>L2</td><td>5</td></tr>
<tr><td>32.</td><td>a) A number is said to be a prime number if it has only two factors. Given is a code to generate the prime numbers from 1 to 100:

# A code to display all prime numbers from 1 to 100
print(“Prime numbers 1 – 100:”)
for i in range(1, ……): # statement 1
c=0
for j in range(2, ……..): # statement 2
if i%j==0:
c=c+1
if c==…… : # statement 3
print(……..)# statement 4
print(“Program Over”)
Complete the statements 1 to 4 to complete the program.

b) When do we use “pass” statement in a python program?</td><td>4+1</td></tr>
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33.	a) What are complex numbers? How would you represent a complex number in python? b) Distinguish between Implicit and Explicit Type Conversion. Give example statement for each. **c)** Explain the use of // and % operator using python statements.	2+2+1
	SECTION E	
34.	a) Radhika is a student of Class XI. She wants to purchase a computer system for making her project. Finally she purchased a laptop including some peripheral devices such as printer, scanner, mouse and a pen-drive. Identify the mentioned peripheral devices under each of following category: A pointing device, A secondary storage device, An input device, An output device b) List the features and characteristics of each of the five generations of computers.	2+2
35.	a) Evaluate the following expressions: 2**3**2, 7*5/4//2 b) Illustrate the use of Identity Operator. c) What are identifiers? List the rules for naming a variable. **OR (choice only for c part)** What are Literals? Explain the use of None literal.	1+1+2