KENDRIYA VIDYALAYA SANGHATHAN LUCKNOW REGION
Class: XI Session Ending Exam: 2022-23
Subject: Computer Science (Theory) (083)

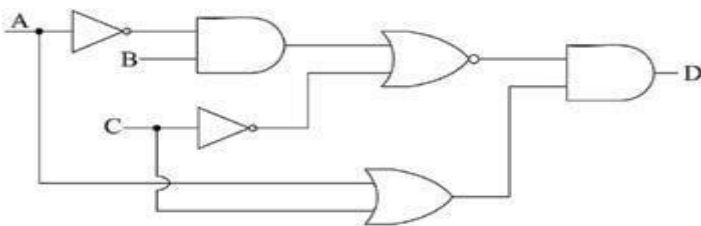Maximum Marks: 70   Time Allowed: 3 hours

General Instructions:
1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 18 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 05 Short Answer type questions carrying 03 marks each.
6. Section D has 03 Long Answer type questions carrying 05 marks each.
7. Section E has 02 questions carrying 04 marks each.
8. All programming questions are to be answered using Python Language only.

	SECTION A	
1.	The first line of Python code can't have an indentation. State True or False	1
2.	Which of the following is/are valid identifier in Python? (a) _in_ (b) in (c) 1_in (d) in_1	1
3.	Raj is working on a MS Word file for making a report of Annual Sports Function. He forgot to save the file. Till now, he has completed the first page. Where do you think his file is currently residing in the computer system? (a) Hard Disk Drive (b) Primary Memory (c) Registers (d) Secondary Memory	1
4.	Write the output of the following code : >>>list1 = [1, 2, 3, 4, 5] >>>list1[len(list1)-1] a. 3 b. 4 c. 5 d. Error	1
5.	The hexadecimal number system uses 16 literals (0–9, A–F). Choose its base value. (a) 2 (b) 15 (c) 16 (d) 9	1
6.	Identify the valid declaration of T: >>>T=3,"hello",2.5 (a) List (b) Data Frame (c) Tuple (d) Dictionary	1
7.	Write the Full form of the following : a) IPR b) FOSS	1
8.	Which of the following will give output as [23,2,9,75]. If list1=[6,23,3,2,0,9,8,75] (a) print(list1[1:7:2]) (b) print(list1[0:7:2]) (c) print(list1[1:8:2]) (d) print(list1[0:8:2])	1
9.	Which of the following is not application software? (a) Windows 10 (b) Ms Word (c) Open office (d) Adobe Photoshop	1
10.	A _____ statement returns either True or False value	1

11.	Which statement is correct? (a) List is immutable & Tuple is mutable (b) List is mutable & Tuple is immutable (c) Both are Mutable. (d) Both are Immutable	1
12.	Which of the following symbol is used in Python for single line comments line comment. (a) /* (b) */ (c) " " (d) #	1
13.	A mail or message sent to a large number of people without their consent is called (a) Cyber stalking (b) Eavesdropping (c) Phishing (d) Spamming	1
14.	What will the following expression be evaluated to in Python? print(80+70*3//30-20%7) (a) 81 (b) 4 (c) 89 (d) 80	1
15.	Which of the following is NOT an intellectual property? a. A poem written by a poet b. An original painting made by a painter c. Trademark of a Company d. A remixed song	1
16.	In which year India's IT Act came into existence? a) 2000 b) 2001 c) 2002 d) 2003	1
	Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True	
17.	Assertion(A): Dictionaries are enclosed by curly braces { } Reason(R): The key-value pairs are separated by commas (,)	1
18.	Assertion(A): Python changes the data type of a variable from int to float in a mixed expression involving both type of variable. Reason(R): Type casting in any programming language is done to avoid any loss of data.	1
	SECTION B	

19.	Mr Ravi has written a code to input a number and check whether it is even or odd. His code is having errors. Rewrite the correct code and underline the corrections made.
	x==input(int("Enter value of x:"))
	if x//2==0:
	    print("Even no")
	else:
	print("Odd no")
		2

20.	Write the differences between Plagiarism and Copyright infringement.	2
21.	D = {'red':10, 'blue':15} is a dictionary in python. (i) Write a python statement to add a new element 'black':25 in the dictionary D. (ii) Write a python statement to change the value of red to 15 in the dictionary D.	1 1
22.	Convert the following: a) $(149)_{10}$ □ $(?)_2$ b) $(1E0D)_{16}$ □ $(?)_{10}$	2

23.	Explain the following: (a) Phishing (b) Eavesdropping	2
24.	Draw flowchart to check if a Number is Even or Odd.	2
25	Prove De-Morgan law using Truth table. OR Prove Absorption Law using Truth table.	2

<div align="center">SECTION C</div>

26.	Write a program to count number of 's' in the string 'successor'. (Without Using Library Functions) OR Write a program to create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have marks above 80.	3
27.	Write a program to calculate BMI of a person after inputting its weight in Kgs and height in Meters and then print the Nutritional Status as per following table (BMI=weight / height*height): | Nutritional Status	BMI criteria
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Underweight	<18.5
Normal	18.5 – 24.9
Overweight	25 – 29.9
Obese	>= 30		3
28.	Write the equivalent Boolean expression for the following Logic Circuit : 	3
29	What are the gender and disability issues while teaching and using computers? What solutions do you suggest to handle such issues?	3

30	What will the output for following code?
	`S='Model Exams 2022. Computer Science'`
	`L=S.split()`
	`for I in L:`
	`    if I[0]=='C':`
	`        print('CS')`
	`    elif I[0]=='E':`
	`        print('Experiment')`
	`    elif I.isdigit():`
	`        print('0000')`
	`    else:`
	`        print(I)`
	         OR
	`t=(4, (8, 0, 7))`
	`t1=(4, 7, (2, 8))`
	`print(t.count(0))`
	`print(t[1][2])`
	`print(t*2)`
	`print(len(t1)`
	`print(t1[2])`
	`print(t+t1)`
		3

	SECTION D	

31	Anitha is trying to create a program to get student marks and generate a simple report card. As a programmer, help him to complete the program for its successful execution.
	##program to get student marks and display grade and average
	
	`from _____ import mean        #LINE1`
	`print('**Student Details**')`
	`while True:`
	`    Rno=int(input('Enter student roll no(should be less than 40):'))`
	`    if Rno >= 40:`
	`        print('you entered wrong roll no. please re-enter details')`
	`        _____                        #LINE2`
	`    Name=input('Enter student name:')`
	`    Marks=eval(input('Enter list of marks in 5 subjects:'))`
	`    avg=mean(Marks)`
	`    if 90 < avg <= 100:`
	`            Grade='A+'`
	`            Msg='Excellent!!'`
	`    elif 70 <= avg <=90:`
	`            Grade='B'`
	`            Msg="Great. Keep it up"`
	`    elif 50 <= avg <70:`
	`            Grade='C+'`
	`            Msg='Good but you need to work harder'`
	`    elif 30 <= avg <50:`
	`             Grade='C'`
	`             Msg='You can do better'`
	`    elif 0 <= avg < 30:`
	`             Grade='D'`
	`              Msg='Improvement Needed'`
	`    _____:                              #LINE3`
	`           Grade='Error'`
	`            print('Something wrong. reenter details correctly')`
	`            continue`
	`    print('**REPORT CARD**\nRollno:',Rno,'\tName:',Name)`
	`    print('Average marks:',avg,'\tOverall Grade:',Grade,'\n',Msg)`
	`    Choice=input('Do you wish to enter more data? enter y/n: ')`
	`    if Choice._____=='n':                #LINE4`
	`                _____                    #LINE5`
	`print ('END OF PROGRAM')`	

	A. Which module should she import in LINE1 to be able to use mean function?	1
	B. Which JUMP statement should she use in LINE2 to go back to beginning of the WHILE Loop?	1
	C. Which keyword should she use in LINE3?	1
	D. Which function should she call in LINE4 to convert Choice to lower case?	1
	E. Which JUMP statement is to be included in LINE5 to come out of the WHILE LOOP?	1
32	Write a program that reads N number of integer values in a list Marks and performs the following operations on this list and print accordingly (Assume maximum marks is 100) (i) Print the average marks achieved by the students (ii) Number of students achieve 90 and above marks (iii) Maximum marks achieved by the student(s) (iv) Number of students fails (marks achieved less than 33) (v) Number of students got distinction (marks achieved above 75)	5

3 3	a) Can sequence operations such as slicing and concatenation be applied to dictionaries? Why? b) Write a program to input a tuple of integers and count how many numbers is divisible with 5. For example, is tuple stores 3,7,15,35,56,45,65 then output should be – Total Number divisible by 5 are : 4	2+ 3
	SECTION-E	
34	Posing as someone else online and using his/her personal/financial information shopping online or posting something is a common type of cybercrime these days. i) What are such types of cybercrime collectively called? ii) What measures can you take to stop these? iii) As a citizen of India. What advise you should give to others for e-waste disposal? iv) It is an internet service for sending written messages electronically from one computer to another. Write the service name.	1 1 1 1
35	Find Output: list1 = ["python", "list", 1952, 2323, 432] list2 = ["this", "is", "another", "list"] print(list1[1:4]) print(list1[1:]) print(list1 * 2) print(list1 + list2)	 1 1 1 1

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