अनुक्रमांक/ROLL NO							

केंद्रीय विद्यालय संगठन ,जयपुर संभाग

KENDRIYA VIDYALAYA SANGATHAN, JAIPUR REGION PRACTICE PAPER-I

कक्षा/ CLASS :XII

विषय /SUB: कंप्यूटर विज्ञानं (83) /COMPUTER SCIENCE (83)

अधिकतम अवधि / Time Allowed :03 Hours

अधिकतम अंक Maximum Marks: 70

सेट/SET : 01

सामान्य निर्देश / General Instructions

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In the case of MCQ, the text of the correct answer should also be written.

Q	Question	Marks
No		
	SECTION A	
1	State True or False:	1
	"In a Python loops can also have else clause"	
2	What is the output of the following code?	
	Text = 'Happy hour12-3'	
	L= " "	
	for i in range(len(Text)):	
	if Text[i].isupper():	
	L=L+Text[i].lower()	
	elif Text[i].islower():	
	L=L+Text[i].upper()	
	allé Tarrell in divisió.	
	elif Text[i].isdigit(): L=L+(Text[i]*2)	
	else:	
	L=L+'#'	
	print(L)	
	(A)hAPPY#HOUR1122#33	
	(B)Happy#hOUR12#3	
	(C)hAPPY#HOUR112233	
	(D)Happy Hour11 22 33 #	
3	Consider the given expression:	1
	17%5==2 and 4%2>0 or 15//2==7.5	
	Which of the following will be correct output if the given expression is evaluated?	
1	(a)True (b) False (c)None (d)Null	1
4	Select the correct output of the code: s = "Question paper 2022-23"	'
	ρ - Question μαμεί 2022-20	<u> </u>

		1
	s= s.split('2') print(s)	
	a. ['Question paper ', '0', ", '-', '3']	
	b. ('Question paper', '0', ", '-', '3')	
	c. ['Question paper ', '0', '2', ", '-', '3']	
	c. ['Question paper ', '0', '2', ", '-', '3'] d. ('Question paper ', '0', '2', ", '-', '3')	
5	What will be the output of following code if	1
	a = "abcde"	
	a [1:1] == a [1:2]	
	type (a[1:1]) == type (a[1:2])	
6	Select the correct output of the code:	1
	a = "foobar"	
	a = a.partition("o")	
	print(a)	
	(a) ["fo","","bar"]	
	(b) ["f","oo","bar"]	
	(c) ["f","o","bar"] (d) ("f","o","obar")	
7	State whether the following statement is True or False:	1
'	An exception may be raised even if the program is syntactically correct.	'
8	An exception may be raised even if the program is syntactically confect.	1
Ö	Identify the output of the following python code:	1 '
	D={1:"one",2:"two", 3:"three"}	'
	L=[]	
	for k,v in D.items():	
	if 'o' in v:	
	L.append(k)	
	print(L)	
	(a) [1,2] (b) [1,3] (c)[2,3] (d)[3,1]	
9	Which of the following is not a tuple in python?	1
	(a) (10,20) (b) (10,) (c) (10) (d) All are tuples.	
10		1
	Which of the following is the correct usage for tell() of a file	
	object,?	
	1	
	a) It places the file pointer at the desired offset in a file.	
	b) It returns the byte position of the file pointer as an integer.	
	c) It returns the entire content of the file.	
4.	d) It tells the details about the file.	
11	What will be the output of the following Python code snippet?	1
	d1 = {"john":40, "peter":45}	
	d2 = {"john":466, "peter":45} d1 > d2	
	a. True b. False	
	c. Error d. None	
12	Consider the code given below:	1
12		'
	b=5 def myfun(a):	
	def myfun(a):# missing statement.	
	b=b*a	
	myfun(14)	
	print(b)	

	Which of the following statements should be given in the blank for # Missing statement, if the output produced is 70? a. global a b. global b=70 c. global b d. global a=70			
13	Which of the following commands is not a DDL command?	1		
	(a) DROP (b) DELETE (c) CREATE (d) ALTER			
14	Which of the following keywords will you use in the following query to display the unique values of the column dept_name? SELECT dept_name FROM Company; (a)All (b) key (c) Distinct (d) Name	1		
15	What is the maximum width of numeric value in data type int of MySQL.	1		
	a. 10 digits b. 11 digits c. 9 digits d. 12 digits			
16	SUM(), AVG() and COUNT() are examples offunctions.	1		
	a) single row functions b) aggregate functions c) math function d) date function			
17	is a standard mail protocol used to receive emails from a remote server to a local email client.	1		
	(a) SMTP (b) POP (c) HTTP (d) FTP			
18	Pawan wants to transfer files and photos from laptop to his mobile. He uses Bluetooth Technology to connect two devices. Which type of network will be formed in this case. a. PAN b. LAN c. MAN d. WAN	1		
19	Fill in the blank: In case ofswitching, message is send in stored and forward manner from sender to receiver.	1		
	Q20 and 21 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			
20	Assertion (A): The default argument values in Python functions can be mutable types like lists and dictionaries. Reason (R): Mutable default arguments retain their state across function calls, which can lead to unexpected behaviour.			
21	Assertion (A): The HAVING clause in MySQL is used to filter records after the GROUP BY operation. Reason (R): The WHERE clause filters records before grouping, while HAVING allows for conditions on aggregated data.	1		
	SECTION			
22	B Write difference between mutable and immutable property, Explain it with its example.	2		

23 Predict the output of the Python code given below: T = (9,18,27,36,45,54) L=list(T) L1 = [] for i in L: if i%6==0: L1.append(i) T1 = tuple(L1)	2
code given below: T = (9,18,27,36,45,54) L=list(T) L1 = [] for i in L: if i%6==0: L1.append(i)	
T = (9,18,27,36,45,54) L=list(T) L1 = [] for i in L: if i%6==0: L1.append(i)	
L=list(T) L1 = [] for i in L: if i%6==0: L1.append(i)	
L1 = [] for i in L: if i%6==0: L1.append(i)	
for i in L: if i%6==0: L1.append(i)	
for i in L: if i%6==0: L1.append(i)	
if i%6==0: L1.append(i)	
L1.append(i)	
T1 = tuple(L1)	
1 1 (35.5(2.1)	
print(T1)	
24 Write the Python statement for each of the following tasks usi	ing 2
BUILT-IN functions/methods only:	
(i) To insert an element 400 at the fourth position, in the list	at I 1
	a ruii stop/
period or not.	
OR	
A list named employeesalary stores salary of employees. Write	the Duther
	_
command to import the required module and (using built-in functio	n) to display
the most common salary value from the given list.	
25 What possible outputs are expected to be displayed on the screen	at the time of 2
execution of the program from the following code?	
import random	
temp=[10,20,30,40,50,60]	
c=random.randint(0,4)	
for i in range(0, c):	
print(temp[i],"#")	
a) 10#20# b) 10#20#30#40#50#	
c) 10#20#30# d) 50#60#	
26 Explain the following with help of example.	2
	2
1. Primary Key	
2. Candidate key	
27 Ms. Rajni has just created a table named "Customer" containing	columns 2
Cname, Department and Salary.	
After creating the table, she realized that she has forgotten to	add a
primary key column in the table. Help her in writing an SQL comm	
add a primary key column Custid of integer type to the table Custo	
Thereafter, write the command to insert the following record in the	;
table: Custid- 555	
Cname- Nandini	
Department: Management	
Salary- 45600	
OR	
Manish is working in a database named CCA, in which he has crea	ated a table
·	ancename,
no_of_participants, and category.	
	nas to be
After creating the table, he realized that the attribute, category by	
After creating the table, he realized that the attribute, category he deleted from the table and a new attribute Type CCA of data type s	טוווע וומס
deleted from the table and a new attribute TypeCCA of data type s	•
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N	•
deleted from the table and a new attribute TypeCCA of data type s	_
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks.	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help write commands to complete both the tasks. (i) Expand the following terms:	_
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks. (i) Expand the following terms: XML, SMTP	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help write commands to complete both the tasks. (i) Expand the following terms:	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks. (i) Expand the following terms: XML, SMTP	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks. 28 (i) Expand the following terms: XML, SMTP (ii) Give the difference between XML and HTML.	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks. 28 (i) Expand the following terms:	Manish to
deleted from the table and a new attribute TypeCCA of data type s to be added. This attribute TypeCCA cannot be left blank. Help N write commands to complete both the tasks. (i) Expand the following terms: XML, SMTP (ii) Give the difference between XML and HTML.	Manish to

		S	ECTION C						
29	of lines star Whose woo His house is He will not s To watch his Output: The Write a func- count the nu "DATA.TXT "This is my	ting with 'H' in the ds these are I thir is in the village the see me stopping h s woods fill up wit e line count should ction countmy() in umber of times "m " contains — website. I have di the countmy() function	e file 'Para.txt". I nk I know. ough; nere ch snow. d be 2. OR Python to read ny" occurs in the	eython that displays Example , if the file the text file "DATA e file. For example eference in the CHO play the output as:	a.TXT" and , if the file	3			
30				(40) 1 1 1 1 1		3			
	program, with operation: 3 PUSH()- Travethe stack,S.	h separate user d	efined function of the List, L ar	of 10 students. Write to perform the following the followi	owing				
	1 O1 ()-1 op 8	and display the co	POP()- Pop and display the content of the stack.						
	L=[87, 98,	he content of the 65, 21, 54, 78, 59 put of the code sh	9, 64, 32, 49]						
31	L=[87, 98,	65, 21, 54, 78, 59	9, 64, 32, 49]			3			
31	L=[87, 98, Then the out	65, 21, 54, 78, 59 put of the code sh	9, 64, 32, 49] nould be: 49 59 Y given below:	21 65 87		3			
31	L=[87, 98, Then the out	65, 21, 54, 78, 59 put of the code sh	9, 64, 32, 49] nould be: 49 59		SCHEDULED TE	3			
31	L=[87, 98, Then the out	65, 21, 54, 78, 59 put of the code shape table ACTIVIT ACTIVITYNA	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS	21 65 87		3			
31	L=[87, 98, Then the out	65, 21, 54, 78, 59 put of the code shape table ACTIVIT ACTIVITYNA ME	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM	21 65 87 PRIZEMONEY	TE 2004-01-23 2003-12-12	3			
31	L=[87, 98, Then the out Consider the ACODE 1001 1002 1003	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12	21 65 87 PRIZEMONEY 10000 12000 8000	TE 2004-01-23 2003-12-12 2004-02-14	3			
31	L=[87, 98, Then the out Consider the ACODE	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12 12	21 65 87 PRIZEMONEY 10000 12000 8000 9000	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01	3			
31	L=[87, 98, Then the out Consider the ACODE	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12 12 10	21 65 87 PRIZEMONEY 10000 12000 8000 9000 15000	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01 2004-03-19	3			
31	L=[87, 98, Then the out Consider the ACODE	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw the given table, w Display the details 9000 (including 90 Increase the prized	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12 12 10 rite SQL queries of all activities 000) e money by 5% March 2023.	PRIZEMONEY 10000 12000 8000 9000 15000 s for the following: in which prize mo of those activities were series and the series are series as a series and the series are series and the series are series and the series are series are series and the series are series	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01 2004-03-19 ney is more than whose schedule				
31	L=[87, 98, Then the out Consider the ACODE	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw the given table, w Display the details 9000 (including 90 Increase the prized	Y given below: PARTICIP ANTS NUM 16 10 12 10 rite SQL queries of all activities 200) money by 5% March 2023. of activity wher	21 65 87 PRIZEMONEY 10000 12000 8000 9000 15000 s for the following: in which prize mo	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01 2004-03-19 ney is more than whose schedule				
31	L=[87, 98, Then the out Consider the ACODE	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw the given table, w Display the details 9000 (including 90 Increase the prized	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12 12 10 rite SQL queries of all activities 000) e money by 5% March 2023.	PRIZEMONEY 10000 12000 8000 9000 15000 s for the following: in which prize mo of those activities were series and the series are series as a series and the series are series and the series are series and the series are series are series and the series are series	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01 2004-03-19 ney is more than whose schedule				
31	L=[87, 98, Then the out Consider the ACODE 1001 1002 1003 1005 1008 Based on the (i) the second of (ii) the second out (iii) the second out (iiii) the second out (iiiii) the second out (iiiii) the second out (iiiiii) the second out (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw the given table, w Display the details 9000 (including 90 Increase the prize date is after 1st of Delete the record	9, 64, 32, 49] nould be: 49 59 Y given below: PARTICIP ANTS NUM 16 10 12 12 10 rite SQL queries of all activities 000) money by 5% March 2023. of activity wher SECTION D math module in guments for a	PRIZEMONEY 10000 12000 8000 9000 15000 s for the following: in which prize mo of those activities were participants are left. Class XI. Write a comethod (say sqrt())	TE 2004-01-23 2003-12-12 2004-02-14 2004-01-01 2004-03-19 ney is more than whose schedule less than 12. code where you or pow()). Use				
	Consider the ACODE 1001 1002 1003 1005 1008 Based on to (i) (ii) (iii) You have louse the wrothe exception	he table ACTIVIT ACTIVITYNA ME Relay Name High Jump Shot Put Long Jump Discuss Throw the given table, w Display the details 9000 (including 90) Increase the prize date is after 1st of Delete the record earnt how to use a ong number of ar ion handling proces	Y given below: PARTICIP ANTS NUM 16 10 12 10 rite SQL queries of all activities of activity where SECTION D math module in guments for a less to catch the	PRIZEMONEY 10000 12000 8000 9000 15000 s for the following: in which prize mo of those activities were participants are left.	TE 2004-01-23 2003-12-12 2004-02-14 2004-03-19 ney is more than whose schedule less than 12. code where you or pow()). Use tion.				

34		he following tab	les and answe	r the questions	a and b:	1*4=	
	Table: Ga						
	GCode	GNam e	Rate	Qty	CCode		
	G101	Saree	1250	100	C03		
	G102	Lehang a	2000	100	C02		
	G103	Plazzo	750	105	C02		
	G104	Suit	2000	250	C01		
	G105	Patiala	1850	105	C01		
	Table: Cloth						
	CCode	CName					
	C01	Polyeste	r				
	C02	Cotton					
	C03 C04	Silk	Polyostor				
	C04	Collon- F	Polyester				
	Write SQL	queries for the	following:				
	i.		que quantities c	of garments.			
	ii.		•	or each CCOD	E whose numbers of		
	iii.		more than 1.	DATE whose o	ruantity is mare than		
	111.	100.	AIVIE, CINAIVIE,	RATE WHOSE C	quantity is more than		
	iv.		rage rate of ga	rment whose ra	ate ranges from 1000		
			h values includ				
5		Kishan wants to write a program in Python to insert the following record in the					
		d Flight in MYS		(V:			
		Ino (Flight num	,				
		Source (source)					
		Destination (Des	,	ar			
		are (fare)-integ					
		•	lish connectivit	y between Pyth	non and MySQL:		
		r name-root					
		Password – KVS@123					
		:-localhost					
		ues of fields FIn user. Help Kis	han to write the		e has to be accepted thon.		
	Suman has	created a table	OR named Game	in MYSQL dat	abase Sports:		
		GID (Game ID)		r o a c date	azaoo o pono.		
		Gname (Game	•	r			
		No_of_Participa	,		integer		
		•	`		etween Python and		
		MySQL:			,		
		Username: roo	t				
	•	Password: KVS	S@123				
		Host: localhost					
		w wants to disp	av the records	of students wh	ose number of		
		•	•		program in Python.		
	- == == == == == == == == = = = = = = =		SECTION		,		
36	Write a pro	ogram in Pvthor	that defines a	nd calls the foll	lowing functions:	5	
-	•	•			tores it in a csv file		
	***	'. Each record o					

ClockName, YearofManf, Price. Function takes details of all clocks and stores them in file in one go. Delete() – To accept a ClockID and removes the record with given ClockID from the file 'watch.csv'. If ClockID not found then it should show a relevant message. Before removing the record it should print the record getting removed. 37 Superior Education Society is an educational Organization. It is planning to 1*5=5 setup its Campus at Nagpur with its head office at Mumbai. The Nagpur Campus has 4 main buildings – ADMIN, COMMERCE, ARTS and SCIENCE. You as a network expert have to suggest the best network related solutions for their problems raised in a to e, keeping in mind the distances between the buildings and other given parameters: MUMBAI **NAGPUR CAMPUS Head Office** COMMERCE ADMIN ARTS SCIENCE Shortest distances between various buildings: ADMIN to COMMERCE - 55 m ADMIN to ARTS - 90 m ADMIN to SCIENCE - 50 m COMERCE to ARTS - 55 m COMMERCE to SCIENCE - 50 ARTS to SCIENCE - 45 m MUMBAI Head Office to NAGPUR Campus - 850 KM Number of Computers installed at various buildings are as follows: -110ADMIN COMMERCE - 75 ARTS 40 SCIENCE **- 12** MUMBAI Head Office – 20 a. Suggest the most appropriate location of the server inside the Nagpur Campus to get the best connectivity for maximum number of computers. Justify your answer. b. Suggest and draw the cable layout to efficiently connect various buildings within the Nagpur campus for connecting the computers. c. Which of the following will you suggest to establish the online faceto-face communication between the people in the ADMIN office of Nagpur Campus and Mumbai Head office? i. Cable TV E-mail ii. Video Conferencing iii. **Text Chat** iv. d. Suggest the placement of following devices with appropriate reasons: Switch/Hub i. Repeater ii. e. Suggest the device/software to be installed in Nagpur Campus to take care of data security and unauthorized access. OR Which network type is formed between Nagpur office to Mumbai head office.