

CLASS: XI
TIME: 3 HOURS

SUBJECT: INFORMATICS PRACTICES
M. MARKS: 70

- 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 4 questions (29 to 32). Each question carries 3 marks.
- Section D consists of 2 questions (33 and 34). Each question carries 4 marks.
- Section E consists of 3 questions (35 to 37). Each question carries 5 marks.
- All programming questions are to be answered using Python language only.
- In case of MCQ, text of the correct answer should also be written.

Q No	Section-A (21x1 = 21 marks)	Marks
1	A computer is accurate, but if the result of a computation is false, what is the main reason for it? a). Power failure b). The computer circuits c). Incorrect data entry d). Distraction	1
2	Use of vacuum tubes started in (a) First Generation (b) Third Generation (c) Second Generation (d) Fourth Generation	1
3	Mr. X wants to choose a Primary memory device, help him to find correct one? (a) ROM (b) DVD (c) Hard disk (d) Pen Drive	1
4	A business is using software A to book tickets, then to which category this software belongs? (a). System (b). Application (c). Language Processors (d). Both a and b.	1
5	State True or false “An operating system is an interface between user and computer Hardware. ”	1
6	Evaluate the following expression and select correct option: <code>print(10 != 9 and 12 >= 20)</code> a)True b)False c>Error d)None of These	1
7	Which of the following correct identifier name? (a) 123name (b) My_name (c) 1_simpleinterest (d) for	1
8	How many times the following while loop get executed? <code>a=5</code> <code>while a>0:</code>	1

	print (a) a-=1 print ("Thank You") a) 3 times b) 4 times c) 5 times d) 6 times	
9	What is the output of the following code? <pre>L = [1, 2, 3] print(L * 2)</pre> (a) [1, 2, 3] (b) [1, 2, 3, 1, 2, 3] (c) Error (d) [2, 4, 6]	1
10	Find the output when we execute list("hello") ? a) ['h', 'e', 'l', 'l', 'o'] b) ['hello'] c) ['llo'] d) ['olleh']	1
11	Which of the following statements create a dictionary? (a). my_dict = { } (b). my_dict = {"a":.1: "b".2} (c). my_dict = {1:"a", 2:"b"} (d) . both a & c	1
12	Which one of the following provides the ability to query information from the database and to insert tuples , delete tuples from, and modify tuples in the database? a) DML(Data Manipulation Language) b)DDL(Data Definition Language) c) Query d)Relational Schema	1
13	Horizontal subset of table is known as a) Attribute b)Domain c)Tuple d)Keys	1
14	For each attribute of a relation, there is a set of permitted values, called the_____ of that attribute. a)Dictionaries b)Domain c)Directory d)Relation	1
15	Raman wants to see the structure of “student” tables in database “school”. Help him to write commands in SQL.	1
16	Categorize the following SQL commands into DDL and DML : CREATE, UPDATE, INSERT, DROP,ALTER	1
17	Mr. X wants to remove all records from a table help him to choose correct command? (a) TRUNCATE (b) DROP (c) DELETE (d) REMOVE	1
18	The superimposition of computer-generated perceptual information over the existing physical surroundings is called as _____? a) Immersive experiences b) AR c) VR d) Robot	1
19	_____ helps the user to install and execute an application without worrying about the underlying infrastructure. a) IaaS b) SaaS c) PaaS d) None of the above	1
	Q 20 & 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: Software designed for a school will work only for the school admin. Reason: Customized software is tailor made software according to user requirements	1																
21	Assertion (A): NLP deals with interaction between human and computer systems using common and frequently spoken languages like Hindi, English etc. Reasoning (R): Spell-check feature is an implementation of NLP.	1																
	Section - B (7x2 = 14 marks)																	
22	Give two reasons for data deletion. How can data deletion from unauthorized persons be prevented? OR Give three techniques to prevent accidental file deletion.	2																
23	Differentiate between RAM and ROM?	2																
24	Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code. x=int("Enter value for x ") for y in range[0,11]: if x==y: print x+y Else: print(x-y)	2																
25	Differentiate between del and clear() of the dictionary with example. OR Write a python program to print keys and values separately from the following dictionary: - D1={'A':12,'B':56,'C':74,'D':7,'E':10}	2																
26	Define a) Candidate Key b) Primary Key	2																
27	Write MySql command to create table SALES with given structure <table><tr><th>COLUMN NAME</th><th>DATA TYPE</th><th>SIZE</th><th>CONSTRAINT</th></tr><tr><td>ITEM</td><td>Character</td><td>20</td><td></td></tr><tr><td>ID</td><td>Integer</td><td>3</td><td>Primary key</td></tr><tr><td>QUANTITY</td><td>Integer</td><td>2</td><td></td></tr></table>	COLUMN NAME	DATA TYPE	SIZE	CONSTRAINT	ITEM	Character	20		ID	Integer	3	Primary key	QUANTITY	Integer	2		2
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28	Explain the following . a) Artificial Intelligence b) Machine Learning OR	2																

	Define cloud computing. Write full form of IaaS & PaaS	
	Section - C (4x3 = 12 marks)	
29	a) Define Keywords in python. b) Write a Python program to calculate the amount payable if money has been lent on simple interest. Principal or money lent = P, Rate = R% per annum and Time = T years. Then Simple Interest (SI) = $(P \times R \times T) / 100$. Amount payable = Principal + SI. P, R and T are given as input to the program.	3
30	Results is a dictionary containing Name and Score of students in key: value pair. Results= {"A":240,"B":340,"C":350,"D":280,"E":370} Perform following operations on it. a) Print value of B b) Change marks of student "C" to 450. c) Delete entry of student "C" from it. OR Results is a dictionary containing Name and Score of students in key: value pair. Results= {"A":240,"B":340,"C":350,"D":280,"E":370} Write the output of following operations - a) Results.keys() b) Results.items() c) Results.len()	3
31	KVS wants to create a database KVSLKO with tables MYSCHOOL & MYSTUDENT SQL to store the data. - Name of the database – KVSLKO - Name of the table - MYSTUDENT - The attributes of student are as follows: studentID – numeric studName – character of size 30 sCode – character of size 10 marks – numeric Name of the table - MYSCHOOL - The attributes of school are as follows: schoolID – numeric schoolName – character of size 30 schoolCode – character of size 10 I. Write the correct SQL statement to create a database called KVSLKO. II. Write a SQL statement that will add a new column address in table MYSTUDENT having datatype as char containing max 30 character. III. RO wants to show all tables in database help RO to write appropriate SQL command.	3
32	In a multiplex, movies are screened in different auditoriums. One movie can be shown in more than one auditorium. In order to maintain the record of	3

	movies, the multiplex maintains a relational database consisting of two relations viz. MOVIE and AUDI respectively as shown below: Movie(Movie_ID, MovieName, ReleaseDate) Audi(AudiNo, Movie_ID, Seats, ScreenType, TicketPrice) a) Is it correct to assign Movie_ID as the primary key in the MOVIE relation? If no, then suggest an appropriate primary key. b) Is it correct to assign AudiNo as the primary key in the AUDI relation? If no, then suggest appropriate primary key. c) Is there any attribute which can be used to link records of the tables? Name that attribute. OR An organisation wants to create a database EMPDEPENDENT to maintain following details about its employees and their dependent. EMPLOYEE(AadharNumber, Name, Address, Department, EmployeeID) DEPENDENT(EmployeeID, DependentName, Relationship) a) Name the attributes of EMPLOYEE, which can be used as candidate keys b) The company wants to retrieve details of dependent of a particular employee. Name the tables and the attribute which are required to retrieve this detail c) What is the degree of EMPLOYEE and DEPENDENT relation?	
	Section - D (2x4 = 8 marks)	
33	ABC shop deals in footwear and apparel. Write a program to calculate the total selling price after levying GST. GST rates are applicable as under: Item GST Rate Footwear <= 500 (per pair) 5% Footwear > 500 (per pair) 18% Apparel <= 1000 (per piece) 5% Apparel > 1000 (per piece) 12% OR Write a program to check whether a number entered by the user is palindrome or not.	4
34	Differentiate between following sql commands- a) delete and drop command. b) char and varchar datatype	4
	Section - E (3x5 = 15 marks)	
35	Ms. Naseema is a computer science teacher created a list List = [12,15,18,19,45,76,11,28,16] a. She wants to know the number of elements of list. Help her to write correct code. b. Ms. Naseema want to arrange list in ascending order. c. Ms. Naseema wants to remove 45 from the list. Please help her to write the python code for the same. d. She want to replace 19 with 99 in the list. Help her to write correct code. e. She want to add 99 at 5th Position in the list. Help her to write correct code	5

	OR Assuming the list given below - color = ['Red', 'Green', 'White', 'Black', 'Pink'] give the statement / code fragment to perform the following on the above list. i). to add Blue at the end of the list. ii). to insert Yellow In between Green and White. iii). to delete Black from the list iv). to arrange the list elements in alphabetical order v). to count number of elements present in the list																																																																			
36	<table><tr><th>No.</th><th>Name</th><th>Age</th><th>Depart</th><th>Fee</th><th>Sex</th></tr><tr><td>1.</td><td>Pankaj</td><td>24</td><td>Comp</td><td>120</td><td>M</td></tr><tr><td>2.</td><td>Shalini</td><td>21</td><td>History</td><td>200</td><td>F</td></tr><tr><td>3.</td><td>Sanjay</td><td>22</td><td>Hindi</td><td>300</td><td>M</td></tr><tr><td>4.</td><td>Sudha</td><td>25</td><td>History</td><td>400</td><td>F</td></tr><tr><td>5.</td><td>Rakesh</td><td>22</td><td>Hindi</td><td>250</td><td>M</td></tr><tr><td>6.</td><td>Sumit</td><td>30</td><td>History</td><td>300</td><td>M</td></tr></table> Consider above 'STUDENT' table and answer the following questions- a. Write the attributes which can be serve as candidate keys. b. Find the attribute which can be best suited to become a Primary key c. If 3 more rows and 2 columns are added in above table find the degree and cardinality of above table. Write output of following queries - d. Select Name, Age from Student where Fee between 200 and 400; e. Select Depart from Student where age>25 and Sex='M';	No.	Name	Age	Depart	Fee	Sex	1.	Pankaj	24	Comp	120	M	2.	Shalini	21	History	200	F	3.	Sanjay	22	Hindi	300	M	4.	Sudha	25	History	400	F	5.	Rakesh	22	Hindi	250	M	6.	Sumit	30	History	300	M	5																								
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	IV. Display details of movies where rating is A. V. Display title, type and seat left whose type is biopic or action.	
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