

NAAHAR PUBLIC SCHOOL (CBSE) SENIOR SECONDARY, VILLUPURAM
ACADEMIC YEAR (2022-2023)
FULL REVISION – I

CLASS: XII
SUB: INFORMATICS PRACTICES (065)
SUB TEACHER: Mrs.DHIVYA.N

MARKS: 70
DUR: 3 Hrs
DATE: 30.11.2022

General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A have 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. One internal choice is given in Q35 against part c only.
8. All programming questions are to be answered using Python Language only.

	SECTION – A	
1	Which is called a smart HUB a. HUB with high speed ports b. Switch c. Router d. All of the Above	1
2	Which device is used to transfer Communication Signal to Long Directions a. Amplifier b. Repeater c. Router d. All of the Above	1
3	What is the address size of IPv6? a) 32 bit b) 64 bit c) 128 bit d) 256 bit	1
4	_____ is not a complete program and so is used to add only a particular functionality to the browser. a. Add-ons b. Plug-in c. Software d. None of the above	1
5	Name a device which convert analog signal to digital and vice versa. a. Router b. Modem c. Hub d. Gateway	1
6	We can disable cookies by changing the settings from _____ in Mozilla Firefox browser.. a. General Panel b. Privacy and Security Panel c. Home Panel d. Search Panel	1
7	If a node from one network wants to communicate with a node of a foreign network, data packet will pass through _____ a. Hub b. Gateway c. Ethernet Card d. None of the above	1
8	In _____ topology each device is directly connected with the central device. a. Bus b. Ring c. Star d. Tree	1
9	A _____ sends the request to _____. a. Web server , Web browser b. Web browser , Web server c. Web browser , Web site d. Web server , Web site	1
10	Write the output of the following SQL command. SELECT ROUND(458.46,1); i) 458 ii) 458.5 iii) 459 iv) 458.6	1
11	The statement in SQL which allows to change the definition of a table is (a) UPDATE (b) ALTER (c) INSERT (d) SELECT	1
12	Write the output : SELECT MOD(14,3);	1
13	Write the output of the following SQL query: SELECT POW(INSTR('My Database' , ' '),2);	1
14	Which of the following function count all the values except NULL? (a) COUNT(*) (b) COUNT(column_name) (c) COUNT(NOT NULL) (d) COUNT(NULL)	1
15	What is the meaning of “GROUPBY” clause in MySQL? (a) Group data by column values (b) Group data by row values (c) Group data by column and row values (d) None of the mentioned	1
16	What is the significance of the statement “HAVING COUNT (emp_id)>2” in the following MySQL statement? SELECT name, COUNT (emp_id), emp_no FROM department GROUP BY name HAVING COUNT (emp_id)>2; (a) Filter out all rows whose total emp_id below 2 (b) Selecting those rows whose total emp_id>2 (c) Both (a) and (b) (d) None of the mentioned	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): - There is a centralized control in case of Star topology. Reasoning (R):- A hub can transfer data packets only to the intended node in a network.	1																																																
18	Assertion (A): - DDL Data Definition Language. SQL part-language that facilitates defining creation/ modification etc. of database objects such as tables, indexes, sequences etc. Reasoning (R):- DML Data Manipulation Language. SQL part-language that facilitates manipulation (addition/ deletion/ modification) of data residing in database object.	1																																																
SECTION – B																																																		
19	Ruhani wants to edit some privacy settings of her browser. How can she accomplish her task? (OR) What do you mean by URL?	2																																																
20	Sahil, a Class X student, has just started understanding the basics of Internet and web technologies. He is a bit confused in between the terms “World Wide Web” and “Internet”. Help him in understanding both the terms with the help of suitable examples of each.	2																																																
21	XYZ consultancy is planning to link its branch office in Delhi to its head office in London. Write one way to connect. What type of network (out of LAN/WAN/MAN) will be formed.	2																																																
22	Anjali writes the following commands with respect to a table employee having fields, empno, name, department, commission. Command1: Select count(*) from employee; Command2 :Select count(commission) from employee; She gets the output 4 for the first command but get an output 3 for the second command. Explain the output with justification.	2																																																
23	Consider the following SQL string : ‘Preoccupied’. Write commands to display: (a) ‘occupied’ (b) ‘cup’ (OR) What is the difference between CURDATE() and DATE() functions?	2																																																
24	Shanya Khanna is using a table Employee. It has the following columns : Admno, Name, Agg, Stream [Column Agg contain Aggregate marks] She wants to display the highest Agg obtain in each Stream. She wrote the following statement: SELECT Stream, Max(Agg) FROM Employee; But she did not get the desired result. Rewrite the above query with necessary changes to help her get the desired output.	2																																																
25	Write the output of the following SQL queries : (i) SELECT RIGHT(‘Software’,2) (ii) SELECT MID(‘HONESTY WINS’,3,4)	2																																																
SECTION – C																																																		
26	Consider the following tables Table : STOCK <table><tr><th>ICODE</th><th>INAME</th><th>DCODE</th><th>QTY</th><th>UNITPR</th><th>STKDATE</th></tr><tr><td>444</td><td>Drawing Copy</td><td>101</td><td>110</td><td>21</td><td>31-July-2010</td></tr><tr><td>445</td><td>Sharpener Camlin</td><td>102</td><td>235</td><td>3</td><td>01-Aug-2010</td></tr><tr><td>450</td><td>Eraser Natraj</td><td>101</td><td>40</td><td>2</td><td>17-Aug-2010</td></tr><tr><td>452</td><td>Gen Pen Montex</td><td>103</td><td>50</td><td>5</td><td>30-Dec-2009</td></tr><tr><td>457</td><td>Geometry Box</td><td>101</td><td>35</td><td>45</td><td>15-Nov-2009</td></tr><tr><td>467</td><td>Parker Premium</td><td>102</td><td>60</td><td>205</td><td>27-Oct-2009</td></tr><tr><td>469</td><td>Office File</td><td>103</td><td>32</td><td>25</td><td>13-Sep-2010</td></tr></table> Write SQL Commands for the following statements: (i) To Display details of all items in the STOCK table in descending order of stkdate. (ii) To display minimum unit price of items for each dealer individually as per dealer code from the table stock. Give Output (iii) SELECT COUNT(DISTINCT DCODE) FROM STOCK; (iv) SELECT MAX(SKTDATE) FROM STOCK ;	ICODE	INAME	DCODE	QTY	UNITPR	STKDATE	444	Drawing Copy	101	110	21	31-July-2010	445	Sharpener Camlin	102	235	3	01-Aug-2010	450	Eraser Natraj	101	40	2	17-Aug-2010	452	Gen Pen Montex	103	50	5	30-Dec-2009	457	Geometry Box	101	35	45	15-Nov-2009	467	Parker Premium	102	60	205	27-Oct-2009	469	Office File	103	32	25	13-Sep-2010	3
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469	Office File	103	32	25	13-Sep-2010																																													
27	What is the differences between HAVING clause and Group By clause?	3																																																
28	Consider the given table Faculty :- <table><tr><th>Faculty_Id</th><th>First_name</th><th>Last_name</th><th>Hire_date</th><th>Salary</th></tr><tr><td>1102</td><td>Sulekha</td><td>Mishra</td><td>12-10-1997</td><td>25000</td></tr><tr><td>1203</td><td>Naveen</td><td>Vyas</td><td>23-12-1994</td><td>18000</td></tr><tr><td>1404</td><td>Rakshit</td><td>Soni</td><td>25-08-2003</td><td>32000</td></tr><tr><td>1605</td><td>Rashmi</td><td>Malhotra</td><td>18-09-2004</td><td>21000</td></tr><tr><td>1906</td><td>Amit</td><td>Srivastava</td><td>05-06-2007</td><td>28000</td></tr></table> Write SQL commands to : a. To display details of those faculty members whose First_name ends with ‘t’. b. Display all records in descending order of Hire_date. c. Find the maximum and minimum salary.	Faculty_Id	First_name	Last_name	Hire_date	Salary	1102	Sulekha	Mishra	12-10-1997	25000	1203	Naveen	Vyas	23-12-1994	18000	1404	Rakshit	Soni	25-08-2003	32000	1605	Rashmi	Malhotra	18-09-2004	21000	1906	Amit	Srivastava	05-06-2007	28000	3																		
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29	Delhi Public School in Meerut is starting up the network between its different wings. There	3																																																

are four building named as S, J, A and H. The distance between various buildings is as follows :																																										
<table><tr><th>From</th><th>To</th><th>Distance</th></tr><tr><td>A</td><td>S</td><td>200 m</td></tr><tr><td>A</td><td>J</td><td>150 m</td></tr><tr><td>A</td><td>H</td><td>50 m</td></tr><tr><td>S</td><td>J</td><td>250 m</td></tr><tr><td>S</td><td>H</td><td>350 m</td></tr><tr><td>J</td><td>H</td><td>350 m</td></tr></table>			From	To	Distance	A	S	200 m	A	J	150 m	A	H	50 m	S	J	250 m	S	H	350 m	J	H	350 m																			
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Number of computers in the buildings :																																										
<table><tr><th>Building</th><th>No. of Computers</th></tr><tr><td>S</td><td>130</td></tr><tr><td>J</td><td>80</td></tr><tr><td>A</td><td>160</td></tr><tr><td>H</td><td>50</td></tr></table>			Building	No. of Computers	S	130	J	80	A	160	H	50																														
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(i) Suggest the cable layout of connections between the buildings. (ii) Suggest the most suitable place (i.e. building) to house the server of this school, provide a suitable reason. (iii) Suggest the placement of the following devices with justification - Repeater - Hub/Switch																																										
(or) Rishita is working on a MySQL table named ‘PRODUCTS’ having following structure: <table><tr><th>Field</th><th>Type</th></tr><tr><td>pid</td><td>Varchar(5)</td></tr><tr><td>Pname</td><td>Varchar(20)</td></tr><tr><td>descp</td><td>Varchar(30)</td></tr><tr><td>qty</td><td>integer</td></tr><tr><td>Price</td><td>float</td></tr></table> i) To fetch last 3 characters of pid whose price is more than 30 and less than 50(both included). ii) To display the product name in upper case, removing all trailing and preceeding spaces. iii) To display 5 characters from 4th position from colum descp from Products			Field	Type	pid	Varchar(5)	Pname	Varchar(20)	descp	Varchar(30)	qty	integer	Price	float																												
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descp	Varchar(30)																																									
qty	integer																																									
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30	(i)Differentiate between Internet and Intranet. (ii)Distinguish between Web Browser and Web Server.	3																																								
SECTION – D																																										
31	Mr. Subash , an IT Manager of “GEM Ltd. “ has created the following table to store the records of employees: Table: Emp <table><tr><th>Eid</th><th>EName</th><th>Department</th><th>DOB</th><th>DOJ</th></tr><tr><td>Star1</td><td>Ivan</td><td>Sales</td><td>1994-08-28</td><td>2020-02-14</td></tr><tr><td>Star2</td><td>Melinda</td><td>IT</td><td>1997-10-15</td><td>2021-11-19</td></tr><tr><td>Star3</td><td>Raj</td><td>Accounts</td><td>1998-10-02</td><td>2019-04-02</td></tr><tr><td>Star4</td><td>Michael</td><td>Sales</td><td>2000-02-17</td><td>2020-05-01</td></tr><tr><td>Star5</td><td>Sajal</td><td>IT</td><td>2001-12-05</td><td>2018-06-13</td></tr><tr><td>Star6</td><td>John</td><td>Accounts</td><td>1995-01-03</td><td>2019-07-15</td></tr><tr><td>Star7</td><td>Julia</td><td>Sales</td><td>1985-11-13</td><td>2020-08-19</td></tr></table> Write SQL statements for the following: i. Display the names of employees in uppercase who work in the Sales dept. ii. Display the name of employees who joined in October. iii.Display the positional occurrence of“a” in the name of each employee. iv.Display from the name 3 characters from the 2nd position of all the employees. v. Display the names of employees in lowercase who work in the Sales dept. (OR) i.Predict the output of : SELECT POW(INSTR("My_Database","_"),2); ii. Is NULL and 0(zero) same? Justify your answer. iii.Shyam wants to insert "Sharma" in the "LastName" column of the "Emp" table as shown below, but an error is being displayed. Write the correct SQL statement. INSERT INTO Emp (‘Sharma’) VALUES (Lastname) ; iv.Write the SQL statement and display the O/P to round of 67.246 to two decimal places. v. View the Structure of the table.	Eid	EName	Department	DOB	DOJ	Star1	Ivan	Sales	1994-08-28	2020-02-14	Star2	Melinda	IT	1997-10-15	2021-11-19	Star3	Raj	Accounts	1998-10-02	2019-04-02	Star4	Michael	Sales	2000-02-17	2020-05-01	Star5	Sajal	IT	2001-12-05	2018-06-13	Star6	John	Accounts	1995-01-03	2019-07-15	Star7	Julia	Sales	1985-11-13	2020-08-19	5
Eid	EName	Department	DOB	DOJ																																						
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Star7	Julia	Sales	1985-11-13	2020-08-19																																						

32	RIT University has to set up its new campus at Chennai. It has four department blocks named block A, B, C and D for different functionalities. The Administrative Office is currently located at New Delhi. <table><tr><td>BLOCK A</td><td>135</td></tr><tr><td>BLOCK B</td><td>15</td></tr><tr><td>BLOCK C</td><td>50</td></tr><tr><td>BLOCK D</td><td>20</td></tr></table> Distance between various blocks: Block A to Block B - 50 m Block B to Block C - 115 m Block C to Block D -1.5 km Block A to Block D - 270 m Block B to Block D - 225 m Block A to Block C - 1 km Based on the above information, answer the following questions. i.Connect the devices using a suitable topology. ii.Name the blocks where a switch should be installed. iii.Name the block where the server is to be installed. Justify your answer. iv.What is the network type formed (out of LAN, MAN, WAN) between Block A To C. v. In which block you decide to place the server computer? Justify your answer.	BLOCK A	135	BLOCK B	15	BLOCK C	50	BLOCK D	20	5																																								
BLOCK A	135																																																	
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33	Consider the table EXAM given below : <table><tr><th colspan="6">Table : EXAM</th></tr><tr><th>NO</th><th>NAME</th><th>STIPEND</th><th>SUBJECT</th><th>AVERAGE</th><th>DIVISION</th></tr><tr><td>1</td><td>KARAN</td><td>400</td><td>ENGLISH</td><td>68</td><td>FIRST</td></tr><tr><td>2</td><td>AMAN</td><td>680</td><td>MATHEMATICS</td><td>72</td><td>FIRST</td></tr><tr><td>3</td><td>JAVED</td><td>500</td><td>ACCOUNTS</td><td>67</td><td>FIRST</td></tr><tr><td>4</td><td>BISHAKH</td><td>200</td><td>INFORMATICS</td><td>55</td><td>SECOND</td></tr><tr><td>5</td><td>SUGANDHA</td><td>400</td><td>HISTORY</td><td>35</td><td>THIRD</td></tr><tr><td>6</td><td>SUPARNA</td><td>550</td><td>GEOGRAPHY</td><td>45</td><td>THIRD</td></tr></table> Write SQL command for (i) To list the names of those students who have obtained DIVISION as FIRST in the ascending order of NAME. (ii) To count the number of students who have either accounts or informatics as subject. Give output of the following: (iii) SELECT AVG(STIPEND) FROM EXAM WHERE DIVISION= ‘THIRD’; (iv) SELECT COUNT(DISTINCT SUBJECT) FROM EXAM; (v) SELECT MIN(AVERAGE) FROM EXAM WHERE SUBJECT=’ENGLISH’;	Table : EXAM						NO	NAME	STIPEND	SUBJECT	AVERAGE	DIVISION	1	KARAN	400	ENGLISH	68	FIRST	2	AMAN	680	MATHEMATICS	72	FIRST	3	JAVED	500	ACCOUNTS	67	FIRST	4	BISHAKH	200	INFORMATICS	55	SECOND	5	SUGANDHA	400	HISTORY	35	THIRD	6	SUPARNA	550	GEOGRAPHY	45	THIRD	5
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SECTION - E																																																		
34	Explain the functions with suitable example to do this: a. To find the position of specific word or character in the given text b. Display the total number characters from the text c. To display remainder and sum of given two numbers.	1+1+ 2																																																
35	You have given to create a network in your school building. It has 4 blocks of buildings. Distance between the various blocks is as follows: <table><tr><td>A to B - 50 m</td><td>A to C - 60 m</td></tr><tr><td>A to D - 110m</td><td>D to B - 60m</td></tr><tr><td>D to C - 100m</td><td>C to A - 70m</td></tr></table> Numbers of computers in each block <table><tr><td>Block A – 20</td><td>Block D - 50</td></tr><tr><td>Block B – 15</td><td>Block C– 30</td></tr></table> Based on the above specifications, answer the following questions: a. Out of LAN, WAN and MAN, what type of network will be formed if we interconnect different computers of the campus? Justify. b. Suggest the topology which should be used to efficiently connect the Various blocks of school building. Also draw the cable layout for the same. c. Suggest a network device to connect all computers in each building with justification. d. The School wants internet accessibility in all the blocks. Suggest a suitable technology.	A to B - 50 m	A to C - 60 m	A to D - 110m	D to B - 60m	D to C - 100m	C to A - 70m	Block A – 20	Block D - 50	Block B – 15	Block C– 30	1+1+ 1+1																																						
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