



Date:20/10/2022  
GRADE: XII

MONTHLY TEST-3 (2022-23)  
INFORMATICS PRACTICES

Max marks: 40 marks  
Time: 2 hours

Name :

Q.No.	Questions	Mark
<b>SECTION A</b>		
1	School computer lab cable network is an example of: i. LAN ii. WAN iii. MAN iv. PAN	1
2	Which type of values will not be considered by SQL while executing the following statement? <b>SELECT COUNT(Sales) FROM Shop;</b> i. Numeric value ii. String value iii. Null value iv. Date value	1
3	If column "CASH" contains the data set (100,200,300,200,400,100,300), what will be the output after the execution of the given query? <b>SELECT SUM (DISTINCT CASH) FROM student;</b> i. 1600 ii. 1000 iii. ERROR iv. 0	1
4	Which SQL statement do we use to find out the total number of records present in the table PRODUCT?  i. SELECT * FROM PRODUCT; ii. SELECT COUNT (*) FROM PRODUCT; iii. SELECT FIND (*) FROM PRODUCT; iv. SELECT SUM () FROM PRODUCT;	1
5	Which one of the following is a SCALAR function? i. MOD() ii. SUM() iii. COUNT() iv. AVG()	1
6	Which one of the following functions is used to find the smallest value from the given data in MySQL? i. MIN( ) ii. MINIMUM( ) iii. SMALL( ) iv. MINIMAL( )	1
7	Which amongst the following is not an example of an anti-virus? i. Avg ii. Firefox iii. Avast iv. McAfee	1
8	Legal term to describe the rights of a creator of original creative or artistic work is: i. Copyright ii. Copyleft iii. GPL iv. FOSS	1
9	_____ is the trail of data we leave behind when we visit any website (or use any online application or portal) to fill-in data or perform any transaction. i. Offline phishing ii. Offline footprint iii. Digital footprint iv. Digital phishing	1
10	ASSERTION AND REASONING based questions. <b>Assertion (A)</b> : An Internet troll is a person who deliberately sows discord on the Internet by starting quarrels or upsetting people. <b>Reason (R)</b> : We can download and use any material available on the Internet.	1

	<p>Mark the correct choice as</p> <p>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</p>	
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**SECTION B**

11	What is the purpose of Group By clause in SQL? Explain with the help of suitable example.	2																																				
12	List any four benefits of e-waste management. <b>OR</b> Mention any four net etiquettes.	2																																				
13	Explain the terms Web page and Home Page. <b>OR</b> Mention any four networking goals.	2																																				
14	Based on table STUDENT given here, write suitable SQL queries for the following: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Roll No</th> <th>Name</th> <th>Class</th> <th>Gender</th> <th>City</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Abhishek</td> <td>XI</td> <td>M</td> <td>Agra</td> <td>430</td> </tr> <tr> <td>2</td> <td>Prateek</td> <td>XII</td> <td>M</td> <td>Mumbai</td> <td>440</td> </tr> <tr> <td>3</td> <td>Sneha</td> <td>XI</td> <td>F</td> <td>Agra</td> <td>470</td> </tr> <tr> <td>4</td> <td>Nancy</td> <td>XII</td> <td>F</td> <td>Mumbai</td> <td>492</td> </tr> <tr> <td>5</td> <td>Himnashu</td> <td>XII</td> <td>M</td> <td>Delhi</td> <td>360</td> </tr> </tbody> </table> <p>(i) Display the name and city of students in descending order of student names.  (ii) Display the city name without duplication</p> <p style="text-align: center;"><b>OR</b></p> <p>Discuss the significance of Order by clause in detail with the help of suitable example.</p>	Roll No	Name	Class	Gender	City	Marks	1	Abhishek	XI	M	Agra	430	2	Prateek	XII	M	Mumbai	440	3	Sneha	XI	F	Agra	470	4	Nancy	XII	F	Mumbai	492	5	Himnashu	XII	M	Delhi	360	2
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15	Define Visualization. Name any library that is used for data visualization in python.	2																																				

**SECTION C**

16	Write outputs for SQL queries (i) to (iii) which are based on the given table <b>ORDER</b> : TABLE: ORDER <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>ORDNO</th> <th>ORDNAME</th> <th>PLACE</th> <th>QTY</th> <th>DOR</th> </tr> </thead> <tbody> <tr> <td>T01</td> <td>ABIN</td> <td>DELHI</td> <td>200</td> <td>2022-09-18</td> </tr> <tr> <td>T02</td> <td>MALU</td> <td>MUMBAI</td> <td>250</td> <td>2022-09-22</td> </tr> <tr> <td>T03</td> <td>DIJO</td> <td>DELHI</td> <td>125</td> <td>2022-08-25</td> </tr> <tr> <td>T04</td> <td>SOMAN</td> <td>KERALA</td> <td>98</td> <td>2022-09-27</td> </tr> <tr> <td>T05</td> <td>CHACKO</td> <td>DELHI</td> <td>80</td> <td>2022-07-15</td> </tr> </tbody> </table> <p>i. SELECT LENGTH(ORDNAME) FROM ORDER WHERE QTY&gt;150;  ii. SELECT ORDNAME FROM ORDER WHERE MONTH(DOR)=7;  iii. SELECT MOD (QTY, DAY(DOR)) FROM ORDER WHERE PLACE= 'DELHI';</p>	ORDNO	ORDNAME	PLACE	QTY	DOR	T01	ABIN	DELHI	200	2022-09-18	T02	MALU	MUMBAI	250	2022-09-22	T03	DIJO	DELHI	125	2022-08-25	T04	SOMAN	KERALA	98	2022-09-27	T05	CHACKO	DELHI	80	2022-07-15	3
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17	Write a python program to plot a line chart based on the given data to depict the changing weekly average temperature in Kerala for four weeks.  Week=[1,2,3,4] Temp=[32,26,38,29]	3																														

**SECTION D**

18	<p>Write suitable SQL query for the following:</p> <ol style="list-style-type: none"><li>Display 10 characters extracted from <b>6 th</b> left character onwards from the string '<b>TAMASOMA JYOTHIRGAMAYA</b>'.</li><li>Display the position of occurrence of string '<b>OR</b>' in the string '<b>CORPORATE FLOOR</b>'.</li><li>Round off the value <b>87.7891</b> to two decimal place.</li><li>Display the remainder of <b>80</b> divided by <b>7</b>.</li><li>Remove all the expected leading and trailing spaces from a column <b>NAME</b> of the table '<b>STAFF</b>'.</li></ol> <p style="text-align: center;"><b>OR</b></p> <p>Explain the following SQL functions using suitable examples.</p> <ol style="list-style-type: none"><li>LCASE()</li><li>LTRIM()</li><li>MID()</li><li>YEAR()</li><li>SQRT()</li></ol>	5
19	<p>Abhishek uses computer and mobile for his personal use. Study the following cases and answer the questions given below.</p> <p><b>(Case 1)</b> Once he got the message in WhatsApp that CBSE is announcing the result of class XII tomorrow at 12:00 pm. He forwarded the message to his few friends. But later he came to know that no such announcement was there in CBSE official web-site.</p> <p><b>(Case 2)</b> He is visiting several web-sites.</p> <p><b>(Case 3)</b> He is getting abuse messages from an unknown number due to which he is thinking of quarreling with that person.</p> <p><b>(Case 4)</b> He registered himself in one website by giving his email id and phone number but later his friend told him about the concept of digital footprint. He is now thinking about canceling the registration so that his personal information can be deleted from that website.</p> <p><b>(Case 5)</b> He uploaded one video in his YouTube channel where he used one background music downloaded from somewhere on Internet</p> <ol style="list-style-type: none"><li>In case (1), he is violating: A. net etiquettes B. Communication etiquettes C. copy right D. None of the above</li><li>In case (2), he is leaving: A. Active digital footprint B. Passive digital footprint C. There is no chance of any digital footprint D. None of the above</li><li>In case (3), the unknown person can be called as: A. Cyber Buller B. Internet troll C. Hacker D. Cracker</li></ol>	5

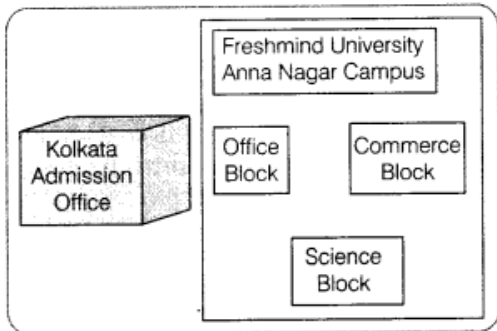
- iv. In case (4) which one is correct:  
 A. His data will be deleted forever after cancelling the registration.  
 B. His data will be deleted after 30 days since it is a digital footprint.  
 C. His data will never be deleted since it became the digital footprint.  
 D. As per the terms and condition of that website, data will be deleted.
- v. In case (5), he may be violating:  
 A. copyright B. Intellectual property right C. Plagiarism D. None of the above

**SECTION E**

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Freshminds University of India is starting its first campus Anna Nagar of South India with its centre admission office in Kolkata. The university has three major blocks comprising of Office Block, Science Block and Commerce Block in the 5 km area campus. As a network expert, you need to suggest the network plan as per (i) to (iv) to the authorities keeping in mind the distance and other given parameters.

4



Expected wire distances between various locations:

Office Block to Science Block	90 m
Office Block to Commerce Block	80 m
Science Block to Commerce Block	15 m
Kolkata Admission Office to Anna Nagar Campus	2450 km

Expected number of computers to installed at various locations in the university are as follows:

Office Block	10
Science Block	140
Commerce Block	30
Kolkata Admission Office	8

- (i) Suggest the authorities, the cable layout amongst various blocks inside university campus for connecting the blocks.
- (ii) Suggest the most suitable place (i.e. block) to house the server of this university with a suitable reason.
- (iii) Suggest an efficient device from the following to be installed in each of the blocks to connect all the computers.  
 (a) Switch (b) Modem  
 (c) Gateway (d) Repeater
- (iv) Suggest the most suitable (very high speed) service to provide data connectivity between Admission Office to Anna Nagar from the following options:  
 (a) Telephone lines (b) Fixed line dial-up connection  
 (c) Co-axial cable network (d) Satellite connection