


Sample Question Paper
Subject: Informatics Practices
Class: XII
Session 2017-18

Time: 3 Hrs.		M.M. 70	
1	(a)	Mr. Ravi, an IT Help Desk executive needs to remotely login a customer's PC to provide him technical support. Suggest a remote access software to him.	1
	(b)	Identify the type of network (out of LAN/PAN/MAN/WAN) formed in the given diagram: <div style="text-align: center;">  </div>	1
	(c)	Identify the fastest wired media out of the following: Ethernet cable, Optical fiber, Co-axial cable	1
	(d)	Mention any two main advantages of star topology over bus topology.	1
	(e)	Discuss the significance of Bluetooth technology.	2
	(f)	I. Write down any two advantages of Open Source Software over Proprietary software. II. Ms. Sita trying to log into your Internet Banking account for online transaction activity. However, as strange as it may seem, she is denied of an access to the bank's website, in spite of having a swift internet connection. What do you think the reason behind this problem is and suggest her few simple precautions in order to overcome any such type of network security threats.	4
2	(a)	I. Help Manish in identifying the incorrect variable name with justification from the following: i. unit@price; ii. fee; iii. userid; iv. avg marks; II. Write Java code to declare a variable named Price of integer type. Assign a value 10 to this variable. Overwrite the value of price with its double value. Decrease the value of price by 5.	4
	(b)	Rewrite the following code using switch case: int day=Integer.parseInt(jTextField1.getText());	2

		<pre> if(day>=1 && day<=5) JOptionPane.showMessageDialog(this, "Working Day"); else if(day>=6 && day<=7) JOptionPane.showMessageDialog(this, "Off Day"); else JOptionPane.showMessageDialog(this, "Invalid Entry"); </pre>																																					
	(c)	<p>i. Ms. Sangeeta wants to add few descriptive lines in the HTML code which should not be displayed on the webpage rather should remain inactive during execution. Suggest her the solution along with example.</p> <p>ii. How HTML is different from XML? Mention any two point of difference.</p>	4																																				
3	(a)	Mention any two example of common Database Management System.	1																																				
	(b)	Write the full forms of the following: i. DDL ii. DML	1																																				
	(c)	<p>Ms. Archana, a class XI student has just started learning MySQL. Help her in understanding the basic difference between Alter and Update command with suitable example.</p> <p>Also suggest her suitable command for the following purpose:</p> <p>i. To display the list of the database already existing in MySQL.</p> <p>ii. To use the database named City.</p> <p>iii. To remove the pre-existing database named Clients.</p> <p>iv. To remove all the records of the table named "Club" at one go along with its structure permanently.</p>	4																																				
	(d)	<p>Observe the given table named "Loan" carefully and predict the output of the following queries:</p> <p style="text-align: center;">Loan</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>File_No</th> <th>Cust_Name</th> <th>PhoneNo</th> <th>Loan_Amt</th> <th>Bank</th> <th>Cheque_Dt</th> </tr> </thead> <tbody> <tr> <td>619095</td> <td>Ms. Roshni</td> <td>9899965430</td> <td>809876</td> <td>HBDC Ltd.</td> <td>2017-06-15</td> </tr> <tr> <td>234252</td> <td>Mr. Rajesh</td> <td>8654327890</td> <td>745738</td> <td>ICUCI Ltd.</td> <td>2017-07-22</td> </tr> <tr> <td>543613</td> <td>Mrs. Sapna</td> <td>8883546354</td> <td>NULL</td> <td>NBI Ltd.S</td> <td>2017-07-24</td> </tr> <tr> <td>435467</td> <td>Mr. Navneet</td> <td>9764747474</td> <td>647484</td> <td>ICUCI Ltd.</td> <td>2017-08-13</td> </tr> <tr> <td>263427</td> <td>Ms. Puja</td> <td>8746454742</td> <td>546373</td> <td>HBDC Ltd.</td> <td>2017-08-30</td> </tr> </tbody> </table> <p>i. select count(file_no)-count(loan_amt) from loan;</p> <p>ii. select Cust_Name,Loan_Amt from loan where month(cheque_dt)=7;</p> <p>iii. SELECT concat(left(file_no,2),right(cust_name,2)) AS "ID" from loan where Bank='ICUCI Ltd.';</p> <p>iv. select round(loan_amt-loan_amt*10/100) As "Discounted Payment" from loan where loan_amt>700000;</p>	File_No	Cust_Name	PhoneNo	Loan_Amt	Bank	Cheque_Dt	619095	Ms. Roshni	9899965430	809876	HBDC Ltd.	2017-06-15	234252	Mr. Rajesh	8654327890	745738	ICUCI Ltd.	2017-07-22	543613	Mrs. Sapna	8883546354	NULL	NBI Ltd.S	2017-07-24	435467	Mr. Navneet	9764747474	647484	ICUCI Ltd.	2017-08-13	263427	Ms. Puja	8746454742	546373	HBDC Ltd.	2017-08-30	4
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4	(a)	Write down the full forms of the following: i. URL ii. IDE	1																																				

	(b) Which property is to be used during design time to add a number of countries in the list box?	1
	(c) What will be the final value of variable x after the following code is executed: <pre>int x=10; while(x>1) { x=x/3; ++x; }</pre>	1
	(d) i. Find the output of the following Java code snippet after execution of each java statement labelled as Line 1, Line 2, Line 3, Line 4: <pre>String userid="INDIA",pwd=""; pwd=userid.substring(0,2); //Line 1 int l=userid.length(); //Line 2 pwd=pwd.toLowerCase(); //Line 3 pwd=pwd.concat(""+l); //Line 4</pre> ii. Rewrite the following code using for loop: <pre>int attempt=0; while(attempt<=3) { String login=jTextField1.getText(); String pwd=jTextField2.getText(); if(login.equals("XII") && pwd.equals("IP")) { jOptionPane1.showMessageDialog(null, "Welcome"); break; } } else jOptionPane1.showMessageDialog(null, "Pl try again"); attempt++; }</pre>	4
	(e) The following code has error(s). Rewrite the correct code underlining all the corrections made : <pre>int start=2;end=20; do; { start=start+start; while(start<=end)</pre>	2

(f)

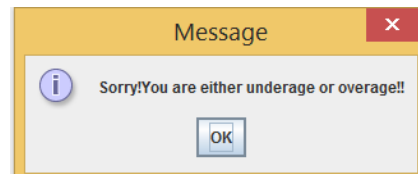
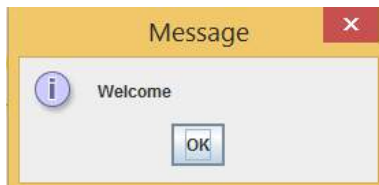
Ms. Neelam works as a programmer in “Kidz Entertainment Zone”. She has designed a Registration Page to calculate the total fee of summer camp depending upon the number of activities selected by the user considering age eligibility as well. A screenshot of the same is shown below:

The screenshot shows a window titled "Summer Camp" with a header "KIDZ ENTERTAINMENT ZONE" and a sub-header "Registration Page". The form contains the following elements:

- Name: Text box with "John" entered.
- Age: Text box with "4" entered.
- Chk Eligibility: Button.
- Activities: Checkboxes for Singing, Dancing, Drawing, Painting, Acting, and Modelling. Painting, Dancing, and Modelling are checked.
- Proceed: Button.
- Fee: Text box with "3000" entered.
- Discount: Text box with "600" entered.
- Net Fee: Text box with "2400" entered.

Help her in writing the code to do the following:

i. After entering the age in the specified text field, when ‘Chk Eligibility’ button is clicked, a dialogue box should be displayed with a message “Welcome” if age is in between 3-13 years else there should be a message “Sorry! You are either underage or overage!!”. Additionally the application should be closed if age is inappropriate.



ii. After selecting the desirable activities, total fee should be displayed in the specified text field on the click of “Proceed” button at the rate of Rs. 1000 per activity.

iii. A discount of 20% is applicable if more than one activity is chosen by the user.

		iv. After clicking on the “Net Fee” button, Net Fee should be calculated and displayed in the respective text field as per the given formula: $\text{Net Fee} = \text{Fee} - \text{Discount}$																																																								
5	(a)	While creating a table named “Employee”, Mr. Rishi got confused as which data type he should chose for the column “ENAME” out of char and varchar. Help him in choosing the right data type to store employee name. Give valid justification for the same.	2																																																							
	(b)	Ms. Shalini has just created a table named “Employee” containing columns Ename, Department, Salary. After creating the table, she realized that she has forgotten to add a primary key column in the table. Help her in writing SQL command to add a primary key column empid. Also state the importance of Primary key in a table.	2																																																							
	(c)	Consider the following table: <p style="text-align: center;"><u>Student</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Admn</th> <th>Name</th> <th>Stream</th> <th>Optional</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>Shrishti</td> <td>Science</td> <td>CS</td> <td>90</td> </tr> <tr> <td>1002</td> <td>Ashi</td> <td>Humanities</td> <td>Maths</td> <td>80</td> </tr> <tr> <td>1003</td> <td>Aditya</td> <td>Commerce</td> <td>IP</td> <td>60</td> </tr> <tr> <td>1004</td> <td>Ritu Raj</td> <td>Science</td> <td>IP</td> <td>65</td> </tr> <tr> <td>1005</td> <td>Sonali</td> <td>Commerce</td> <td>Maths</td> <td>60</td> </tr> <tr> <td>1006</td> <td>Saumya</td> <td>Science</td> <td>IP</td> <td>65</td> </tr> <tr> <td>1007</td> <td>Ashutosh</td> <td>Science</td> <td>IP</td> <td>95</td> </tr> <tr> <td>1008</td> <td>Prashant</td> <td>Commerce</td> <td>P.ED</td> <td>80</td> </tr> <tr> <td>1009</td> <td>Aman</td> <td>Commerce</td> <td>IP</td> <td>70</td> </tr> <tr> <td>1010</td> <td>Rishabh</td> <td>Humanities</td> <td>P.ED</td> <td>85</td> </tr> </tbody> </table> Write commands in SQL for (i) to (iv): i. To display the details of all those students who have IP as their optional subject. ii. To display name, stream and optional of all those students whose name starts with ‘A’. iii. To give an increase of 3 in the average of all those students of humanities section who have Maths as their optional subject. iv. To display a name list of all those students who have average more than 75.	Admn	Name	Stream	Optional	Average	1001	Shrishti	Science	CS	90	1002	Ashi	Humanities	Maths	80	1003	Aditya	Commerce	IP	60	1004	Ritu Raj	Science	IP	65	1005	Sonali	Commerce	Maths	60	1006	Saumya	Science	IP	65	1007	Ashutosh	Science	IP	95	1008	Prashant	Commerce	P.ED	80	1009	Aman	Commerce	IP	70	1010	Rishabh	Humanities	P.ED	85	4
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	(d)	On the basis of the Table Student, write the output(s) produced by executing the following queries: i. Select max(average), min(average) from students group by stream having stream like ‘Science’; ii. Select name from students where optional IN (‘CS’, ‘IP’);	2																																																							
6	(a)	Write SQL query to create a table “Registration” with the following structure: <p style="text-align: center;">Table: Registration</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Field name</th> <th>Datatype</th> <th>Size</th> <th>Constraint</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Field name	Datatype	Size	Constraint					2																																															
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		Reg_Id	Integer	2	Primary Key		
		Name	Varchar	20			
		Course	Varchar	10			
		Join_Dt	Date				
	(b)	Consider the tables given below while attempting the following questions:					
		Train					
		TrainId	TName	Source	Destination		
		3402	Century Express	New Delhi	Mumbai		
		4023	Superfast Express	Kanyakumari	Chandigarh		
		3424	Lucknow Mail	Lucknow	New Delhi		
		6542	Capital Express	Chennai	Kolkata		
		9876	Punjab Mail	Patna	Ludhiana		
		5400	Century Express	New Delhi	Kanpur		
		Reservation					
		RefNo	TrainId	Passenger	JourneyDate		
		S001	4023	Shubham Singh	2017-07-02		
		C001	6542	Jishan Mittal	2017-06-25		
		S002	4023	Jessica Raj	2017-07-02		
		P001	9876	Paramjeet Singh	2017-07-22		
		S003	4023	Gurjyot Singh	2017-07-03		
		C002	6542	Akash Mukharjee	2017-06-25		
		P002	9876	Meera Devi	2017-07-22		
		L001	3424	Ruby Lal	2017-06-29		
		C003	5400	Tapshree	2017-07-04		
	(i)	Identify the primary key column of Train and Reservation.					1
	(ii)	Help Mr. Sajal in identifying the wrong statement with reference to UNION clause: a. Each SELECT statement within UNION must have the same number of columns b. The columns must also have similar data types c. The columns in each SELECT statement must also be in the same order. d. By default, the UNION operator selects all the values.					1
	(c)	With reference to the above given tables, write commands in SQL for (i) and (ii) and output for (iii) below:					6
		i. To display the Train name along with its passenger name. ii. To display Train detail which has no reservation yet. iii. SELECT T.* from Train T, Reservation R where T.TrainId=R.TrainId AND Source LIKE "%Delhi" OR Destination LIKE "%Delhi";					
7	(a)	Write down any two benefits of net banking.					1
	(b)	Mr. Sanjay, a banking professional want to enroll himself in an e-Learning course. Mention him any two challenges of e-Learning.					2
	(c)	Ms. Juhi, works as an IT Executive in a health insurance company named 'Total Health'. She has been assigned a task to design a customer registration page. Help her in choosing the most appropriate controls for the specified task from					2

Textfield, Label, RadioButton, CheckBox, ListBox, ComboBox, Button and write in the third column considering the following points:

- Customer can enter his/her name in the control.
- Customer can choose only one city out of given list of city.
- Customer can choose only one type out of given policy types.
- Customer can choose any number of INCLUSIONS out of given inclusions.

S. No.	Control used to	Control
1	CUSTOMER'S NAME	
2	CUSTOMER'S CITY	
3	POLICY TYPE (Individual/Family)	
4	INCLUSIONS (Critical Illness/Accidental Coverage/Health Checkup/Others)	