

COMMON PRE-BOARD EXAMINATION 2017-2018**INFORMATICS PRACTICES****CLASS XII**

Time Allowed: 3 hours

Maximum Marks: 70

MARKING SCHEME

1	a	<p>Technical Solutions Incorporated is planning to link its front office situated in a city with its store located in a hilly region where cable connection is not feasible. Suggest an economic way of connection with reasonable high speed. Also mention the category of communication media to which it belong to.</p> <p>Radiowave (1/2 mark for correct answer) Wireless/unguided Media(1/2 mark for correct answer)</p>	1
	b	<p>Mr Kapil, Systems Manager of Model Corporate Inc experienced an extremely slow communication between his HR office and Sales division along with signal drop. These offices are 120 meters apart from each other and connected by Ethernet cable.</p>	1
	i	<p>Suggest him a device which can be installed between the offices for smooth communication.</p> <p>Repeater (1/2 mark for correct answer)</p>	
	ii	<p>What type of network is formed by this kind of connectivity out of LAN, MAN and WAN?</p> <p>LAN (1/2 mark for correct answer)</p>	
	c	<p>Which of the following units measures the speed with which data can be transmitted from one node to another node in a network? Also give the expansion of the suggested unit.</p> <p>Mbps-mega bits per second (1/2 mark for choosing the correct unit) (1/2 mark for the expansion)</p>	1
	d	<p>Write one snooping method used by hackers and crackers.</p> <p>Key loggers to monitor key strokes and capture passwords (or any other relevant method) (1 mark for correct answer)</p>	1
	e	<p>Give reason:</p>	2
	i	<p>For long distance microwave communication, high towers are built and microwave antennas are put at the top.</p> <p>Microwaves cannot pass through solid objects like buildings etc</p>	

			(1 mark for the correct reason)	
		ii	<p>Data transmitted using Optical Fiber Cable is not susceptible to electromagnetic fields.</p> <p>Optical Fiber cables uses light signals to transmit data and not electromagnetic signals.</p> <p>(1 mark for correct reason)</p>	
	f	i	<p>Differentiate between True type font and Open type font.</p> <p>As per technical specification fonts are classified as True type and Open type fonts.</p> <p>True type fonts – font technology designed by Apple Computer. It contain both the screen and printer font data in a single component.</p> <p>(1 mark for 2 valid points)</p> <p>Open type font, an extension of Open Type font support multiple platforms and expanded character sets.</p> <p>(1 mark for 2 valid points)</p>	4
		ii	<p>What is the importance of Cyber Law?</p> <p>On the internet, communication technology uses various means of transferring textual messages, pictures and much more. Each time there may be a number of threats on either the sender's or the receiver's side which creates a bridge in between network communication. To sort out these problems, the Internet Security Council made a number of precautions ie rules. These predefined rules are called cyber laws or laws of internet.</p> <p>(2 marks for the correct explanation)</p>	
2	a	i	<p>Name and explain the usage of any one relational and one logical operator in Java.</p> <p>One relational operator in Java is =. The operator results in true if both its operands are equal otherwise false. One logical operator in Java is &&. This operator is used to combine two logical values/expressions. The result will be true if only if both the operands are true otherwise false.</p> <p>(1/2 mark each for naming the relational operator and logical operator) (1/2 mark each for mentioning the purpose)</p>	4
		ii	<p>Write Java statements to accomplish the following. (Assume that the variables num1,num2,num3,dividend and divisor used, are declared already)</p>	
			<p>a. Assign the sum of num1 and num2 to num3 and increment the value of num1 by 1 after calculation. Use only one statement.</p> <p>num3=num1++ + num2;</p> <p>(1 mark for the correct statement)</p>	
			<p>b. Calculate the remainder after dividend is divided by divisor and assign the result to dividend.</p> <p>c. dividend=dividend% divisor;</p> <p>(1 mark for the correct statement)</p>	
	b		<p>Rewrite the following switch-case statement using if-else if statement in Java.</p> <p>double Amt,Tax;</p>	2

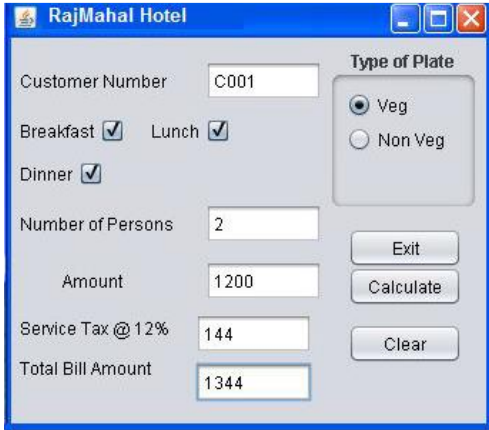
		<pre> int Tour=Integer.parseInt(jTF1.getText()); String type; switch(Tour) { default: type="General"; Amt=2000; Tax=11; break; case 1: type="Combo"; Amt=10000; Tax=12; break; case 2: type="Value"; Amt=9000; Tax=10; break; case 3: type="Promotion"; Amt=1000; Tax=2; break; } System.out.println("Selected Tour is\t"+type); double Amt,Tax; int Tour=Integer.parseInt(jTF1.getText()); String type; if(Tour==1) { type="Combo"; Amt=10000; Tax=12; } else if(Tour==2) { type="Value"; Amt=9000; Tax=10; } else if(Tour==3) { type="Promotion"; Amt=1000; Tax=2; } else { type="General"; Amt=2000; Tax=11;} </pre>	
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			(2 marks for the correct conversion) (check for the curly braces, identification of the Tour variable and the == operator used)	
	c	i	<p>Mention the type of listing used in the HTML output, given below. Mention the tag (any one) and attributes (any two) used for attaining the given list.</p> <p>III. MATHS IV. INFORMATICS V. MMWT</p> <p>Ordered List (1/2 mark for identifying the type of list) Tag- (1/2 mark for the tag) Attributes-type, start (1/2 mark each for the attributes)</p>	4
		ii	<p>State one advantage and disadvantage each, of XML.</p> <p>Advantage-XML is text based It is platform independent which makes it easy to use. (1 mark or advantage- any one)</p> <p>Disadvantage Syntax is large when compared to binary representations and Is redundant Due to redundancy, it occupies much higher memory and this increases costs on transmission, storage and processing. (1 mark for disadvantage-any one)</p>	
3	a		<p>Mention any two benefits of using a DBMS.</p> <p>Redundancy can be controlled Inconsistency can be avoided (1/2 mark each for each benefit- the one given above or any two relevant benefits)</p>	1
	b		<p>What is the difference between SQL and MySQL.</p> <p>SQL stands for Structured Query Language. It's a standard language for accessing and manipulating databases that is recognized by nearly all RDBMSs. MySQL is an open source RDMS that provides you with a rich set of features that support a secure environment for storing maintaining and accessing data.</p> <p>(1 mark for correct difference)</p>	1
	c		<p>Explain the difference between Where and Having clauses with a suitable example each.</p> <p>WHERE Vs HAVING: WHERE is used to put a condition on individual row of a table whereas HAVING is used to put condition on individual group formed by GROUP BY clause in a SELECT statement.</p> <p>Select * from student where marks>25; //returns the details of students with more than 25 marks. Select count(*) from student group by section having count(*)>30; //returns the number of students from the sections having more than 30 students.</p>	4

		<p>(1 mark for difference. 1 mark for the example. A single example which explains the difference of both, can also be given marks)</p> <p>Aniket needs to meet the following requirements in MySQL but he is not clear about group by. Explain it for him.</p> <p>GROUP BY: GROUP BY clause is used in a SELECT statement in conjunction with aggregate functions to group the result based on distinct values in a column.</p> <p>(1 mark for correct answer)</p> <p>Also from the list of his requirements given below, select the ones for which he needs to use a group by clause.</p>																																																																														
	i	To calculate the gross salary of all the employees in his department.																																																																														
	ii	To make a report with the list of the total number of items purchased for each department.																																																																														
	iii	To list the departments with more than 25 employees.																																																																														
	iv	To count the number of staff with salary less than 25000.																																																																														
		(ii) and (iii) needs group by clause (½ mark each for the correct options chosen)																																																																														
	d	<p>Consider the given table LIBRARY and predict the output of the following queries.</p> <table><tr><th>No</th><th>Title</th><th>Author</th><th>Type</th><th>Publisher</th><th>Qty</th><th>Price</th></tr><tr><td>1</td><td>Data Structure</td><td>Lipschutz</td><td>DS</td><td>McGraw</td><td>4</td><td>217</td></tr><tr><td>2</td><td>Computer Studies</td><td>French</td><td>FND</td><td>Galgotia</td><td>2</td><td>275</td></tr><tr><td>3</td><td>Advanced Pascal</td><td>Schildt</td><td>PROG</td><td>McGraw</td><td>4</td><td>350</td></tr><tr><td>4</td><td>Dbase dummies</td><td>Palmer</td><td>DBMS</td><td>PustakM</td><td>9</td><td>230</td></tr><tr><td>5</td><td>Mastering C++</td><td>Gurewich</td><td>NET</td><td>BPB</td><td>3</td><td>195</td></tr><tr><td>6</td><td>Guide Network</td><td>Freed</td><td>PROG</td><td>ZPress</td><td>2</td><td>200</td></tr><tr><td>7</td><td>Mastering Foxpro</td><td>Srigal</td><td>DBMS</td><td>BPB</td><td>3</td><td>135</td></tr><tr><td>8</td><td>DOS Guide</td><td>Norton</td><td>OS</td><td>PHI</td><td>3</td><td>175</td></tr><tr><td>9</td><td>Basic for Beginners</td><td>Morton</td><td>PROG</td><td>BPB</td><td>1</td><td>40</td></tr><tr><td>10</td><td>Mastering Windows</td><td>Cowart</td><td>OS</td><td>BPB</td><td>3</td><td>25</td></tr></table>	No	Title	Author	Type	Publisher	Qty	Price	1	Data Structure	Lipschutz	DS	McGraw	4	217	2	Computer Studies	French	FND	Galgotia	2	275	3	Advanced Pascal	Schildt	PROG	McGraw	4	350	4	Dbase dummies	Palmer	DBMS	PustakM	9	230	5	Mastering C++	Gurewich	NET	BPB	3	195	6	Guide Network	Freed	PROG	ZPress	2	200	7	Mastering Foxpro	Srigal	DBMS	BPB	3	135	8	DOS Guide	Norton	OS	PHI	3	175	9	Basic for Beginners	Morton	PROG	BPB	1	40	10	Mastering Windows	Cowart	OS	BPB	3	25	4
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	i	<p>SELECT UPPER(MID(AUTHOR,3,4)) FROM LIBRARY WHERE TYPE LIKE “%N%”;</p> <table><tr><td>UPPER(MID(AUTHOR,3,4))</td></tr><tr><td>ENCH</td></tr><tr><td>REWI</td></tr></table> <p>(1 mark for correct output)</p>	UPPER(MID(AUTHOR,3,4))	ENCH	REWI																																																																											
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		ii	<div>SELECT NO,RIGHT(TITLE,LENGTH(TYPE)) FROM LIBRARY WHERE QTY=3;</div> <table><tr><td>NO</td><td>RIGHT(TITLE,LENGTH(TYPE))</td></tr><tr><td>5</td><td>c++</td></tr><tr><td>7</td><td>xpro</td></tr><tr><td>8</td><td>de</td></tr><tr><td>10</td><td>ws</td></tr></table> <div>(1 mark for correct output)</div>	NO	RIGHT(TITLE,LENGTH(TYPE))	5	c++	7	xpro	8	de	10	ws	
NO	RIGHT(TITLE,LENGTH(TYPE))													
5	c++													
7	xpro													
8	de													
10	ws													
		iii	<div>SELECT INSTR(AUTHOR,"ON") FROM LIBABRY WHERE TYPE IN("PROG", "OS");</div> <table><tr><td>INSTR(AUTHOR,"ON")</td></tr><tr><td>5</td></tr><tr><td>5</td></tr></table> <div>(1 mark for correct output)</div>	INSTR(AUTHOR,"ON")	5	5								
INSTR(AUTHOR,"ON")														
5														
5														
		iv	<div>SELECT COUNT(*) - COUNT(DISTINCT PUBLISHER) FROM LIBRARY;</div> <table><tr><td>COUNT(*) - COUNT(DISTINCT PUBLISHER)</td></tr><tr><td>4</td></tr></table> <div>(1 mark for correct output)</div>	COUNT(*) - COUNT(DISTINCT PUBLISHER)	4									
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4														
4	a		<div>Name any two methods of a combo box. getSelectedIndex(),getSelectedItem()</div> <div>(1/2 marks for each method)</div>	1										
	b		<div>Find the output of the following code fragment:</div> <div>byte a=5,b=0,c; c=(byte) (-a++ * b--); jTF1.setText("Result is " +c);</div> <div>Result is 0 (1 mark for correct output)</div>	1										
	c		<div>Which feature of Object Oriented Programming is depicted below?</div> <div>class baseClass { int counter; baseClass() {counter=0;} public void factorial() { //function body } } class childClass extends baseClass {</div>	1										

		<pre> void changeVal() { //function body } </pre> <p>Inheritance (1 mark for correct answer)</p>	
d	i	<p>Find the output/result of the marked statements in the following Java code.</p> <pre> jTextArea1.setText(null); String board="CBSE"; String Str="Informatics Practices"; board=board.concat(Str); //Statement 1 jTextArea1.setText(jTextArea1.getText()+Str.toLowerCase()); //Statement 2 int ln=jTextArea1.getText().length(); //Statement 3 String nStr=board.substring(16); //Statement 4 </pre> <p>Statement 1 - CBSEInformatics Practices Statement 2 - informatics practices Statement 3 - 21 Statement 4 - Practices</p> <p>(1/2 mark for each correct output)</p>	4
	ii	<p>Rewrite the following code using do-while loop.</p> <pre> int i, sum=2; for(i=3;i<8;++i) { if(i%4==0) { sum=Math.pow(sum,i); break; } else sum+=i/2; } </pre> <p><u>code using do-while loop</u></p> <pre> int i=3, sum=2; do { if(i%4==0) { sum=Math.pow(sum,i); break; } else sum+=i/2; } </pre>	

		<pre> i++; }while(i<8); </pre> <p>½ mark each for correctly placing initialization, test and update expressions. ½ mark for the proper curly braces.</p>													
e		<p>The following code has some errors. Rewrite the correct code after underlining all the corrections made.</p> <pre> Int y=3; Switch(y) { case 1= System.out.println("One"); case>2: System.out.println("Two"); case else: System.out.println("Invalid"); } </pre> <p><u>Corrected code</u> <u>int</u> y=3; <u>switch</u>(y) { <u>case 1:</u>System.out.println("One");<u>break;</u> <u>case 2:</u> System.out.println("Two");<u>break;</u> <u>default:</u> System.out.println("Invalid"); }</p> <p>(1/2 mark each for any 4 errors)</p>	2												
f		<p>RajMahal Hotel computerized its Billing System. Given below is the data entry screen through which the Bill Amount is calculated. The rates are to be taken from the table given.</p> <table border="1"> <thead> <tr> <th>Rate</th><th>Breakfast</th><th>Lunch</th><th>Dinner</th></tr> </thead> <tbody> <tr> <td>Veg</td><td>100</td><td>200</td><td>300</td></tr> <tr> <td>Non Veg</td><td>200</td><td>400</td><td>500</td></tr> </tbody> </table> 	Rate	Breakfast	Lunch	Dinner	Veg	100	200	300	Non Veg	200	400	500	6
Rate	Breakfast	Lunch	Dinner												
Veg	100	200	300												
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	i	<p>Write the code for Calculate button as per the following: Amount is based on the Rate specified in the table and also the Type of Plate. Service Tax =12% of Amount. Total Bill amount=Amount + Service Tax.</p> <pre>//code for Calculate button double amt=0,tax=0,total=0; int persons; persons=Integer.parseInt(jtxtPersons.getText()); if(jRdVeg.isSelected()) if(jchkBfast.isSelected()) amt += 100; if(jchkLunch.isSelected()) amt+= 200; if(jchkDinner.isSelected()) amt+=300; else if(jchkBfast.isSelected()) amt += 200; if(jchkLunch.isSelected()) amt+= 400; if(jchkDinner.isSelected()) amt+=500; jtxtAmt.setText(""+ amt * Persons); tax=amt * 12/100; jtxtTax.setText(""+ tax); total=amt+tax; jtxttotal.setText(""+ total); (3 marks for the correct calculation and display)</pre>	
	ii	<p>Write the code to clear all textfields, uncheck the checkboxes and set Veg as the default option.</p> <pre>jtxtCust_No.setText(""); . //clear other text fields similarly jRdVeg.setSelected(true); jchkBfast.setSelected(false); jchkLunch.setSelected(false); jchkDinner.setSelected(false); (1 mark for clearing the controls)</pre>	
	iii	<p>Write the code to exit the application. The message "Are you sure you want to Exit?", should be displayed on the click of Exit button. Only if the user presses Yes button, the application should be closed.</p>	

		<pre>int res=JOptionPane.showConfirmDialog(null,"Are you sure you want to exit?", "Confirm", JOptionPane.YES_NO_OPTION); if (res== 0) System.exit(0);</pre> <p>(1 mark for the confirmdialog used correctly) (1 mark for the correct exit statement) (Students can use names of their choice for the components)</p>															
5	a	<p>Explain the difference between Commit and RollBack with the help of an example.</p> <p>The COMMIT statement is used to save all changes made to the database during the transaction to the database. COMMIT ends the current transaction. The ROLLBACK statement aborts any changes made during the transaction and the state of database is returned to what it was before the transaction began to execute and does not save any of the changes made to the database during the transaction.</p> <p>Example: Consider the table Student</p> <table><tr><th>Roll</th><th>Name</th></tr><tr><td>1</td><td>Helen</td></tr><tr><td>2</td><td>Sruti</td></tr></table> <p>Start Transaction; Insert into Student values(5,"Aarti"); //Statement 1 Commit; Insert into Student values(6,"Milan"); //Statement 2 Rollback; Select * from Student;</p> <p>//The above statement will return</p> <table><tr><th>Roll</th><th>Name</th></tr><tr><td>1</td><td>Helen</td></tr><tr><td>2</td><td>Sruti</td></tr><tr><td>5</td><td>Aarti</td></tr></table> <p>As statement 1 becomes permanent due to the commit issued and Statement 2 is rolled back.</p> <p>(1 mark for the difference and 1 mark for the example)</p>	Roll	Name	1	Helen	2	Sruti	Roll	Name	1	Helen	2	Sruti	5	Aarti	2
Roll	Name																
1	Helen																
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Roll	Name																
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	b	<p>Consider the table WINTER_CLASS given below and write SQL statements for the requirements mentioned in (i) and (ii) (Assume relevant data type/size for fields if needed)</p> <table><tr><td>Activity</td><td>Ac_Code</td><td>Incharge</td><td>Cash</td><td>Date</td></tr><tr><td>FOODSTALL</td><td>101</td><td>GAURI</td><td>10000</td><td>2017-12-31</td></tr><tr><td>PAINTBALL</td><td>102</td><td>GIRI</td><td>8500</td><td>2017-12-25</td></tr><tr><td>SOCCER</td><td>103</td><td>SERU</td><td>9000</td><td>2017-12-20</td></tr><tr><td>JUMPING CASTLE</td><td>104</td><td>NIMIL</td><td>12000</td><td>2017-12-23</td></tr></table>	Activity	Ac_Code	Incharge	Cash	Date	FOODSTALL	101	GAURI	10000	2017-12-31	PAINTBALL	102	GIRI	8500	2017-12-25	SOCCER	103	SERU	9000	2017-12-20	JUMPING CASTLE	104	NIMIL	12000	2017-12-23	2										
Activity	Ac_Code	Incharge	Cash	Date																																		
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PAINTBALL	102	GIRI	8500	2017-12-25																																		
SOCCER	103	SERU	9000	2017-12-20																																		
JUMPING CASTLE	104	NIMIL	12000	2017-12-23																																		
	i	<p>Aniket felt the need to restrict the users from entering NULL values in the Cash field.</p> <p>Alter table WINTER_CLASS modify Cash integer NOT NULL; (1 mark for the correct statement)</p>																																				
	ii	<p>He wanted to delete the fields Activity and Ac_Code.(Write a single SQL statement)</p> <p>Alter table WINTER_CLASS drop Activity, drop Ac_Code; (1 mark for correct statement)</p>																																				
	c	<p>Consider the TABLE GARMENTS and write SQL queries for (i) to (iv):</p> <table><tr><td>GCODE</td><td>GNAME</td><td>SIZE</td><td>COLOUR</td><td>PRICE</td></tr><tr><td>111</td><td>TSHIRT</td><td>XL</td><td>RED</td><td>1400.00</td></tr><tr><td>112</td><td>JEANS</td><td>L</td><td>BLUE</td><td>1600.00</td></tr><tr><td>113</td><td>SKIRT</td><td>M</td><td>BLACK</td><td>1100.00</td></tr><tr><td>114</td><td>LADIES JACKET</td><td>XL</td><td>BLUE</td><td>4000.00</td></tr><tr><td>115</td><td>TROUSERS</td><td>L</td><td>BROWN</td><td>1500.00</td></tr><tr><td>116</td><td>LADIES TOP</td><td>L</td><td>PINK</td><td>1200.00</td></tr></table>	GCODE	GNAME	SIZE	COLOUR	PRICE	111	TSHIRT	XL	RED	1400.00	112	JEANS	L	BLUE	1600.00	113	SKIRT	M	BLACK	1100.00	114	LADIES JACKET	XL	BLUE	4000.00	115	TROUSERS	L	BROWN	1500.00	116	LADIES TOP	L	PINK	1200.00	4
GCODE	GNAME	SIZE	COLOUR	PRICE																																		
111	TSHIRT	XL	RED	1400.00																																		
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	i	<p>Change the values in the record with GNAME as SKIRT, to the following values for the fields GCODE, SIZE and PRICE.</p> <p>(117,S,1000.00) Update Garments set GCode=117,Size='S' and Price=1000.00); (1 mark for correct statement)</p>																																				
	ii	<p>Display the details of the garments with SIZE XL and L.</p> <p>Select * from GARMENTS where size in('XL','L');</p> <p>(1 mark for correct statement) Give marks for correct usage of OR operator also.</p>																																				
	iii	<p>Display the GNAME if the PRICE is between 1000 and 2000;</p> <p>Select GName from GARMENTS where PRICE>1000; (1 mark for correct statement)</p>																																				

		iv	Display the SIZE and GCODE of the garments which have the substring “IR” in their GNAME. Select SIZE,GCODE FROM GARMENTS where GName like “%IR%”; (1 mark for correct statement)																			
	d		On the basis of the above table (Original one) write the outputs produced by executing the following queries.	2																		
		i	SELECT SIZE, COUNT(*) FROM GARMENTS GROUP BY SIZE; <table><tr><td>Size</td><td>Count(*)</td></tr><tr><td>XL</td><td>2</td></tr><tr><td>L</td><td>3</td></tr><tr><td>M</td><td>1</td></tr></table> (1 mark for correct statement)	Size	Count(*)	XL	2	L	3	M	1											
Size	Count(*)																					
XL	2																					
L	3																					
M	1																					
		ii	SELECT COLOUR,COUNT(COLOUR) FROM GARMENTS GROUP BY COLOUR HAVING COUNT(*)>1; <table><tr><td>Colour</td><td>Count(Colour)</td></tr><tr><td>Blue</td><td>2</td></tr></table> (1 mark for correct statement)	Colour	Count(Colour)	Blue	2															
Colour	Count(Colour)																					
Blue	2																					
6	a		Write SQL query to create the table UNIVERSITY with the constraints listed. <table><tr><td>COLUMN NAME</td><td>DATA TYPE</td><td>CONSTRAINT</td></tr><tr><td>AFFILIATION</td><td>INTEGER</td><td>PRIMARY KEY</td></tr><tr><td>NAME</td><td>VARCHAR(25)</td><td></td></tr><tr><td>LOCATION</td><td>VARCHAR(20)</td><td>NOT NULL</td></tr><tr><td>PHONE NUMBER</td><td>INTEGER</td><td></td></tr><tr><td>TYPE</td><td>CHAR(2)</td><td>CAN ONLY BE ‘R’ OR ‘D’</td></tr></table> Create Table University(Affiliation Integer Primary key,Name varchar(25),Location varchar(20) Not Null,Phone Numbwr Integer,Type Char(2) check(type Enum(‘R’,’D’); (2 marks for correct statement) Marks can be given if Check constraint is used correctly instead of Enum	COLUMN NAME	DATA TYPE	CONSTRAINT	AFFILIATION	INTEGER	PRIMARY KEY	NAME	VARCHAR(25)		LOCATION	VARCHAR(20)	NOT NULL	PHONE NUMBER	INTEGER		TYPE	CHAR(2)	CAN ONLY BE ‘R’ OR ‘D’	2
COLUMN NAME	DATA TYPE	CONSTRAINT																				
AFFILIATION	INTEGER	PRIMARY KEY																				
NAME	VARCHAR(25)																					
LOCATION	VARCHAR(20)	NOT NULL																				
PHONE NUMBER	INTEGER																					
TYPE	CHAR(2)	CAN ONLY BE ‘R’ OR ‘D’																				

	b	<p>Consider the related tables(follow referential integrity) given below and answer the questions.</p> <p>TABLE:HOLIDAYS</p> <table><tr><td>PKG_NO</td><td>LOC</td><td>DEP_AIRPORT</td><td>NO_DAYS</td><td>ST_DATE</td><td>DEP_DAY</td></tr><tr><td>T101</td><td>Tenerife</td><td>Manchester</td><td>7</td><td>21/5/02</td><td>TH</td></tr><tr><td>T102</td><td>Tenerife</td><td>Manchester</td><td>14</td><td>1/6/02</td><td>TU</td></tr><tr><td>C101</td><td>Corfu</td><td>Gatwick</td><td>14</td><td>11/10/02</td><td>SA</td></tr><tr><td>C101</td><td>Rhodes</td><td>Heathrow</td><td>7</td><td>15/6/02</td><td>MO</td></tr></table> <p>TABLE:PACKAGE</p> <table><tr><td>PACKAGENO</td><td>ACTIVITY</td><td>COSTPERDAY</td></tr><tr><td>T101</td><td>Sailing</td><td>300</td></tr><tr><td>K101</td><td>River Rafting</td><td>1200</td></tr><tr><td>T102</td><td>Volcano Exploration</td><td>530</td></tr><tr><td>C101</td><td>River Rafting</td><td>282</td></tr><tr><td>R101</td><td>Windsurfing</td><td>725</td></tr></table>	PKG_NO	LOC	DEP_AIRPORT	NO_DAYS	ST_DATE	DEP_DAY	T101	Tenerife	Manchester	7	21/5/02	TH	T102	Tenerife	Manchester	14	1/6/02	TU	C101	Corfu	Gatwick	14	11/10/02	SA	C101	Rhodes	Heathrow	7	15/6/02	MO	PACKAGENO	ACTIVITY	COSTPERDAY	T101	Sailing	300	K101	River Rafting	1200	T102	Volcano Exploration	530	C101	River Rafting	282	R101	Windsurfing	725	
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	i	<p>Aman tried to insert the following record into the table HOLIDAYS but he was not able to. What could be the possible reason? R102,Moher,Dublin,2,23/10/02,MO</p> <p>As per Referential Integrity, a record cannot be added in the related table if it doesn't exist in the parent table. (1 mark for correct reason)</p>	1																																																
	ii	<p>What will be the output for the fields LOC and ACTIVITY, if an equi join query is executed on the above tables?</p> <table><tr><td>LOC</td><td>ACTIVITY</td></tr><tr><td>Tenerife</td><td>Sailing</td></tr><tr><td>Tenerife</td><td>Volcano Exploration</td></tr><tr><td>Corfu</td><td>River Rafting</td></tr><tr><td>Rhodes</td><td>River Rafting</td></tr></table> <p>(1 mark for correct output)</p>	LOC	ACTIVITY	Tenerife	Sailing	Tenerife	Volcano Exploration	Corfu	River Rafting	Rhodes	River Rafting	1																																						
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	c	<p>Write SQL queries for (i) to (iii)</p>	6																																																
	i	<p>Display the ST_DATE along with the ACTIVITY for those whose ST_DATE is before MAY 2002. Select St_Date, Activity from Holidays H,Package P where H.PKG_NO=P.PackageNo and ST_Date<'2002-05-01'; (2 marks for correct query)</p>																																																	
	ii	<p>Display the Total Cost if the NO_DAYS is more than 10. Select sum(No_Dayes*Costperperson) as "Total Cost" from from Holidays H,Package P where H.PKG_NO=P.PackageNo and No_Days>10; (2 marks for correct query)</p>																																																	
	iii	<p>Display the LOC, PACKAGENO and ACTIVITY for the packages not chosen at all.</p>																																																	

		Slect LOC,PackageNo,Activity from from Holidays H,Package P where H.PKG_NO!=P.PackageNo; (2 marks for correct query)											
7	a	What could be the possible reason for the high dropout rates of e-learning courses? Lack of motivation Lack of proper follow up (½ mark for each point)	1										
	b	How does e-Governance empower citizens? Write 2 points. e-Governance empowers citizen by providing: <ul style="list-style-type: none">● Access to all government instructions and rules● Facility to contact government officials● Lauge request/complaint● Online registrations for various government services (Give 2 marks for any two points)	2										
	c	Anil is planning for his PG admission abroad. The criteria are given below: He can choose one University from the choices displayed. Packages can be multiple(priority based). What controls will you suggest for the following: <table><tr><td>Action</td><td>Control required</td></tr><tr><td>Mouse Click</td><td>Button</td></tr><tr><td>An application letter</td><td>Text Area</td></tr><tr><td>Select University</td><td>Combo Box</td></tr><tr><td>Select Package</td><td>List Box</td></tr></table>	Action	Control required	Mouse Click	Button	An application letter	Text Area	Select University	Combo Box	Select Package	List Box	2
Action	Control required												
Mouse Click	Button												
An application letter	Text Area												
Select University	Combo Box												
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(1/2 mark each for the correct component)