CLASS -XII

SUBJECT: INFORMATICS PRACTICES

ANSWER KEY

			-
1.	(a)	Which Protocol is used to transferring files to and from a remote host? Ans: FTP (File Transfer Protocol)	1
	(1.)		1
	(b)	Write any two physical media used for data transmission in a network system.	1
		Ans: Coaxial cable, Optical Fibers, Twisted pair cable, any 2 - ½*2=1	
	(c)	Write the Full Form of the following:	1
		(i) MODEM - Modulator/ Demodulator - ½ mark (ii) MAC – Media Access	
		Control - ½ mark	
	(d)	Mention any two advantages of open standards.	1
		1. The data is accessible to all without any restrictions.	
		2. No hidden information	
		3. Diversity and interoperability is industry	
		4. offers diverse choices for users. (any 2 *½=1 mark)	
	(a)	Mr. Ram Kumar is confused between ROUTER Address and GATEWAY. Explain	2
	(e)		
		him about ROUTER and GATEWAY.	
		Router: It a network device that connects multiple networks irrespective of thie	
		protocol 1 mark	
		Gateway: It is a network device that connects dissimilar networks. It establishes an	
		intelligent connection between a local net work and external networks with completely	
		different structures. – 1 mark	
	(f)	Define Topology. Write any two disadvantages of Star Topology.	2
		Topology- The pattern of interconnection of nodes in a network is called the topology-	
		1 mark	
	(g)	Define the following:	2
	(0)	(i) PYTHON - PYTHON -(a) Phyton is an interpreted, interactive programming	
		language created by Guido van Rossum in 1990 ½ mark (b) it runs on Microsoft	
		windows, Linux, BSD, Mac OS X and java½ mark	
		(ii) MOZILA – (a) it is a free, cross-platform, internet software suite - ½ mark	
		(b) It includes : a web browser, an email client , an HTML editor, IRC client - ½ Mark	
2.	(a)	Name any four attributes of BODY tag in HTML.	1
	(4)	(1) Bgcolor	
		(2) Background	
		(3) Link	
		(4) Vlink	
		(5) Alink	
		(6) Topmargin	
		(7) Leftmargin	
		(8) Text	
		Any 4 - 1/4*4=1 mark	
	(b)	What are top level containers? Give any one example.	1
		Containers that can be displayed directly on a desk top are called top-level containers.	
		They are the highest level container for a java application. \(\frac{1}{2}\) mark	
		Example: JFrame, JApplet ,JDialog - any one ½ mark	
		Example: JFrame, JApplet, JDIalog - any one ½ mark	

CLASS -XII

_		ANS WER RE I	
	(c)	Which three tags in HTML let you create the definition lists?	1
		<pre><dl>- definition list , <dt>- definition term <dd>-definition description</dd></dt></dl></pre>	
		All the 3 tags – 1 mark any 2 -½ mark any 1 -¼ mark	
	(d)	Define Inheritance. Write a name of the inheritance which is not supported by java. Inheritance is the capability of one class to inherit properties from another class. ½	1
		mark	
		Multiple inheritance is not supported by java ½ mark	
	(e)	Write a Java code that takes an Integer from jTextField1 and prints the accepted	2
		number is PERFECT NUMBER or NOT in jLable1 with the use of for loop.	_
		private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {	
		int a;	
		int i;	
		int perfect=0;	
		a=Integer.parseInt(jTextField1.getText());	
		for(i=1;i <a;i++)< td=""><td></td></a;i++)<>	
		$\{if(a\%i=0)$	
		perfect=perfect+i;	
		if(perfect==a)	
		iLabel1.setText("Perfect No");	
		else	
		jLabel1.setText("Not a Perfect No");	
		}	
		Declaring 3 variables and initializing - ½ mark	
		Accepting value - 1/4 mark	
		Using for loop with correct syntax with block- ¼ mark Using if statement - ¼ mark	
		Adding value= ½ mark	
		Using block { } in proper place -1/4 mark	
		Using if statement - ½ mark	
		Printing result on the Label- 1/4 mark	
	(f)	How Check Box is different from Radio Button? Write any one method of each.	2
		Check box: it is used select more than one option from many choices½ mark	
		Radio button- it is used to select only one option from many choices ½ mark	
		Methods:	
		getText(),isEnabled(), isVisible(), setText(), isSelected() – any one method for each	
	(-)	1/2*2=1 mark	
	(g)	What will be value of x and y after execution of the following code:	
		int x;	
	1		

		ANSWER KEY	
		int y=10; for(x=10; x>=1;x-=2) { y+=x; jTextArea1.append("x ="+x +"\n" + "y ="+y); } Ans: x =10 y =20 x =8 y =28 x =6 y =34 x =4 y =38 x =2	2
		y = 40 correct ans: 2 marks (format - $\frac{1}{2}$ mark, printing each values(x & y)- $\frac{1}{4}$ *6= $\frac{1}{2}$	
3.	(a)	Mumar, a student of class XI created a table "STUDENT". Class_sec is one of the columns of this table. To delete the column class and section he wrote the following query: Alter student delete class_sec; Help Kumar to run the query by removing the errors from the query and rewriting it. Ans: Alter table student drop column class_sec; Alter table - ½ mark Using drop column column name - ½ mark	1
	(b)	A numeric data field MARK contains 96.74. Write a command to round off MARK to: (i) Whole Number (ii) Up to 1 decimal place Ans: (i) Select round(mark); / select round(96.74); -½ mark (ii) select round(mark,1); / select round(96.4,1); -½ mark	1
	(c)	Mr.Hari Create two tables with DeptNo as primary key in Employee table and Foreign Key in Department Table. While inserting a new row in Dept table, Mr. Hari is not able to enter a new value in the column DeptNo. What could be the reason for it? Ans: Statement used to insert a new data if a corresponding value does not currently exist in the Employee table(one of the Foreign key Rule). 1 mark	1
	(d)	How ORDER BY Clause is different from GROUP BY Clause in MySql? Ans: Order by: it is used to arrange the records either in ascending / descending order of the field specified in the select query. ½ mark Group by: it is used to combines all those records that have identical values in a particular field or a group of fields. ½ mark	1
	(e)	Mr.Raghu is confused about SUBSTR() and INSTR() functions in MySql. Explain What is the difference between these two functions with an example? Substr(): it is used to extract number of characters from the main string based on the	2

CLASS -XII

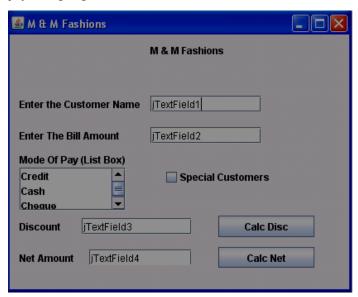
		ANSWER KEY	
		position specified. ½ mark	
		Ex: select substr("ABCDEF",1,3);	
		ABC ½ mark	
		Instr(): it is used to display the character position in the main string. ½ mark	
		Ex: select instr("ABCDE","B"); ½ mark	
		$ \begin{array}{ccc} 2 & (2^{\text{nd}} \text{ position}) \end{array} $	
	(6)		2
	(f)	Define Data Model. Name the various data models available for database system.	2
		Ans: A data model refers to a set of concepts to describe the structure of a database,	
		and certain constraints that the database should obey. 1 mark	
		Four data models: 1 Relational data model 2. Network data model 3. Object Oriented	
		data model 4. Hierarchical data model (4*1/4=1 mark)	
			<u> </u>
	(g)	What are the different techniques available to join tables in MySql?	2
		1. Equi Join	
		2. Non- Equi Join	
		3. Cross Join	
		4. Natural Join	
		Left / Right Join (Any Techniques - ½*4= 2 mark)	
4.	(a)	Rewrite the following program code using for statement:	2
١.	(u)	int p=5, sum=0;	
		do	
		[{	
		sum=sum+p;	
		p+=2;	
		} while(p<=12);	
		jTextField1.setText(Integer.toString(sum));	
		Ans:	
		int p; ½ mark	
		int sum=0; ½ mark	
		$for(p=5;p<=12;p+=2) - \frac{1}{2} mark$	
		{	
		sum=sum+p; - ½ mark	
		Sum-Sum-p, - 72 mark	
		Tout field a st Tout (Into conto String (cours)). // monto	
		jTextfield1.setText(Integer.toString(sum)); - ½ mark	
		or	
		int p; ½ mark	
		int sum=0; ½ mark	
		for(p=5;p<=12;p+=2) ½ mark	
		sum=sum+p; ½ mark	
		jTextfield1.setText(Integer.toString(sum)); ½ mark	
		jionnioiai.setionumiogei.tosumg(sumj), /2 mark	

	ANSWERKEI	1
(b)	Given a string object namely total, having value as "6789" stored in it. What will be the result of the following: JOptionPane.showMessageDialog(null, total+Integer.parseInt(total)); Ans: 67896789 correct output- 2marks	2
(c)	What is the significance of a button group? Ans: int ,byte, char (all the three -1 mark , any 2 -½ mark, any one -¼ mark)	1
(d)	Which are all the data types supports while using switch. Case? A button group allows only one of its components to selected. – 1 mark	1
(e)	What is a combo box? What method obtains the current selection of a combo box? A combo box appears as a text field along with a drop-down list arrow from which user can choose a value (it is a combination of text field and List box). 1 mark jComboBox1.getSelectedItem()-Returns the selected Item - 1 mark	2
(f)	What sill be content of jLabel1 after executing the following code: int a=1; int b=2; do{ b=b*a; a=a+2; System.out.println("b= "+b); } while(a<=10); Ans: b= 2 b= 6 b= 30 b= 210 b= 1890 proper format and correct output – 2 marks (each value - 1/4*6=11/2 marks – proper format -1/2 mark)	2

SUBJECT: INFORMATICS PRACTICES

ANSWER KEY

(g) Mr. Sanjey is a programmer in M&M Fashions. He created the GUI in Netbeans.



The Store accepts payments in 3 modes- Cheque, cash and credit cards. The discount given as per mode of payment is as follows.

Mode of Payment	Discount
Cash	11%
Cheque	9%
Credit Card	5%

If the customer is a special customer and the Bill Amount is more than 12000 then the customer gets an additional discount 5% on Bill Amount.

1

2

2

(i) Write the code to make the text fields Discount (jTextField3) and Net amount (jTextField4) uneditable.

Ans:

Ans:

jTextField1.setEnabled(false);

jTextField2.setEnabled(false);

or

¡TextField1.setEditable(false);

iTextField2.setEditable(false);

 $(\frac{1}{2}*2=1 \text{ mark})$

(ii) When "Calc Discount" Button is clicked the discount button the discount should be calculated as per the given criteria and it should be displayed in the Discount

	ANSWERKET
Te	extField(jTextField3).
	ns:
pr	ivate void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
	pat amount;
flo	oat discount = 0;
flo	oat adiscount=0;
St	ring mode;
an	nount=Float.parseFloat(jTextField2.getText());
m	ode=(String)jList1.getSelectedValue();
if((mode.equals("Cash"))
	discount=amount*11/100;
els	se if(mode.equals("Cheque"))
	discount=amount*9/100;
els	se if(mode.equals("Credit"))
	discount=amount*5/100;
if((jCheckBox1.isSelected() && amount >12000)
	adiscount=amount*5/100;
di	scount=discount+adiscount;
jΤ	extField3.setText(" "+discount);
	}
Ex Us	eclaring appropriate variables -¼ mark xtracting value from the list box-¼ mark sing if statement -¼ mark
Us Us Cs Us	eclaring appropriate variables -¼ mark xtracting value from the list box-¼ mark
Ex Us Us Ca Us Di	eclaring appropriate variables -¼ mark xtracting value from the list box-¼ mark sing if statement -¼ mark sing equals method- ¼ mark alculating discount - ¼ mark sing check box , checking condition & calculating Additional Discount- ½marl
Ex Us Us Ca Us Di	eclaring appropriate variables -½ mark stracting value from the list box-¼ mark sing if statement -¼ mark sing equals method-¼ mark alculating discount -¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field -¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). is: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
Ex Us Us Ca Us Di (iii sh	eclaring appropriate variables -½ mark stracting value from the list box-¼ mark sing if statement -½ mark sing equals method- ¼ mark alculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). ns: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount;
Ex Us Us Cs Us Di (iii sh An Pr Fl	eclaring appropriate variables -¼ mark attracting value from the list box-¼ mark sing if statement -¼ mark sing equals method-¼ mark alculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). ns: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount; oat discount;
Ex Us Us Ca Us Did (iii she Air Fl	eclaring appropriate variables -¼ mark extracting value from the list box-¼ mark sing if statement -¼ mark sing equals method-¼ mark alculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). is: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount; oat discount; oat net;
Ex Us Us Ca Us Did (iii sh	eclaring appropriate variables -¼ mark extracting value from the list box-¼ mark sing if statement -¼ mark sing equals method-¼ mark alculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). ins: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount; oat discount; oat net; nount=Float.parseFloat(jTextField2.getText());
Use	eclaring appropriate variables -¼ mark extracting value from the list box-¼ mark sing if statement -¼ mark sing equals method- ¼ mark salculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount- ½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). is: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount; oat discount; oat net; nount=Float.parseFloat(jTextField2.getText()); scount=Float.parseFloat(jTextField3.getText());
Ex Us Us Ca	eclaring appropriate variables -¼ mark extracting value from the list box-¼ mark sing if statement -¼ mark sing equals method-¼ mark alculating discount - ¼ mark sing check box, checking condition & calculating Additional Discount-½marl isplaying result on the proper text field - ¼ mark i) When "Calc Net" button is clicked the net amount should be calculated and it ould be displayed in the net amount textfield(jTextField4). ins: rivate void jButton2ActionPerformed(java.awt.event.ActionEvent evt) { oat amount; oat discount; oat net; nount=Float.parseFloat(jTextField2.getText());

		Declaring appropriate variables- ½ marks Accepting values from the appropriate text fields - ½ mark Calculating net - ½ mark Displaying value - ½ mark	
5	(a)	What is NULL value in MySql? What will happen if you use NULL in arithmetic expression? If a column in a row has no value, then column is said to be null. ½ mark Any arithmetic expression containing a null always evaluates null - ½ mark	1
	(b)	Murali is not clear about the difference between the following two statements: (i) Select count(distinct(deptno)) from emp; (ii) Select count(deptno) from emp; Help him understand the difference between the these two statements. (i) It is used to count only the unique/no duplicates department numbers ½ mark Ex: if the dept no in emp table contains 10,20,20,30 Output will be 3 ½ mark (ii) It is used to count all the department numbers including duplicates ½ mark Ex: if the dept no in emp table contains 10,20,20,30 Output will be 4 ½ mark	2

SUBJECT: INFORMATICS PRACTICES

ANSWER KEY

(c) Consider the following table named as "Teacher" with details. Write Mysql command for(i) to (iv) and output for(v) to (vii).

Table: Teacher

Tno	T_name	Department	Basic	Allowances
T16	Rakesh Sharma	Physics	27200	1500
T11	Vivek Rawat	Chemistry	34500	1200
T13	Dinesh Goel	Computer	30600	1300
T14	Lokesh Rathore	Commerce	44200	
T15	Lakshmi	Physics	43800	2000
T18	Ramkrishana	Commerce	24500	2500
T17	Suresh Kumar	Chemistry	32300	1900
T10	Raj Mohan	Computer	41700	1600

(i) To display all the teachers name and their total salary (Basic+ Allowances) whose name not ends with the character 'a'.

Select t_name,basic+allowances from teacher where t_name not like'%a'; (using select t_name.basic+allowances - ½ mark & not like '%a' - ½ mark)

(ii) Add a new column DEDUCTIONS with integer size of 4.

Ans: Alter Table teacher add deductions int(4); (using alter - ½ mark add deductions int(4) -½ mark)

- (iii) To increase the basic salary by 30000 those who are all in Physics department. Update teacher set basic=30000 where department='physics';
- (iv) To display all the teachers name whose BASIC is not in the range.25000 to 40000.

Select t name from teacher where basic not between 25000 and 40000;

(v) Select department, count(*) from teacher group by department;

department	count((*)
Dlarvaina	2	

Physics	2
Chemistry	2
Computer	2
Commerce	2

Correct output – 1 mark

7

SUBJECT: INFORMATICS PRACTICES

ANSWER KEY

		(vi) Select T_name Correct output	heading - ¾ mark) e, Basic from teacher where bat - 1 mark heading - ¾ mark) Basic	asic<30000;	
		Rakesh Sharma	27200		
		Ramkrishana	24500		
		Kanikusnana	24300		
6	(a)	Sum(basic) 278800 Write a MySal comm	Max(allowances) 2500 and to create a table 'SPORTS	Correct output – 1 mark (without heading - ³ / ₄ mark)	
	(4)				
		Column Name	Data Type(size)	Constraint	
İ		Game_Id	Integer(4)	Primary Key	2
ĺ		Game_Name	Varchar(20)	Unique Key	
		Game_Type	Varchar(10)	Not Null	
) not null, prize_money decim	game_name varchar(20) unique, al(7,2)); - 2 marks	

CLASS -XII

Handset					
SetCode	Setname		OS	Cost	
M3423	Micromax	canvasXL	Android	31000	
M3456	Micromax	canvas Beat	Android	9870	
N1212	Nokia Lun	nia 929	Windows	28000	
S1234	Samsung (Galaxy 4	Android	34000	
Dealers					
Deal_no	SetCode	City			
D43	S1234	Mumbai			
D56	M3423	Delhi			
D12	S1234	Chennai			
D37	N1212	Chennai			
D32	N1212	Bangalore			
usir pro	dset.setcode=deng select - ½ mager join conditi	ealers.setcode ark, using pro on – 1 mark	; per field name (2 marks)	ealers where es for result - ½ r	
usin pro (ii) To o	dset.setcode=deng select - ½ maper join conditional display how maps Select os, coun	ealers.setcode ark, using pro on – 1 mark any handsets a t(*) from hand	; per field name (2 marks) re there in each	es for result - ½ n	n.
(iii) To de han Selded dea usin	dset.setcode=dag select - ½ mager join condition display how magelect os, count Using count fund ½ mark display the deal dsets. ect deal_no,dealers.setcode=hage	ealers.setcode ark, using proon — 1 mark any handsets a t(*) from hand nection - ½ mander details for each d	; per field name (2 marks) re there in each lset group by cook rk ,using group each dealer wh ty,setname,os and os='wind alt - ½ mark, u	es for result - ½ not operating systematics; by city - 1 mark to are all selling when the from dealers, han	m. x, using select vindows dset where elect - ½ mark,

		ANSWERKEI	
	(d)	Find the output of the following: (i) Select truncate(5678.56,-1)+truncate(3320.45,0); Ans: truncate(5678.56,-1)+truncate(3320.45,0); 8990 -½ mark (without heading -¼ mark) (ii) Select left("India is our country",length("Tiger")); Ans: left("India is our country",length("Tiger")); India -½ mark (without heading -¼ mark)	1
7	(a)	Define e-Learning. Write any two popular e-Learning websites. Ans: It is aflexible term used to describe a means of teaching through technology such as network ,browser,CDROM or DVD multimedia platforms. 1 mark www.moodle.org www.w3schools.com www.nottingam.ac.uk/xerte etc., (any 2 correct answers: -½*2=1 mark)	2
	(b)	How has e-Governance benefited the common man and write any two e-Governance projects in India. Ans: 1. The number of trips to government offices reduced by nearly 11!% to 27% 2. Waiting time reduced from 10% to 60% 3. Bribes reduced by 50% to 90% 4. All above factors resulted in reduced cost of availing the service. (any 1- ½ mark) Projects: www.mcs.gov.in http://passport.gov.in http://incometaxindia.gov.in www.india.gov.in http://supremecourtofindia.nic.in http://supremecourtofindia.nic.in http://www.indiancourts.nic.in www.rti.gov.in (any 2 correct projects: -½*2=½ mark)	1
	(c)	Mr.Das is working as System Developer in SS Enterprises. Help him to choose most appropriate controls from List Box, Combo Box, Text Field, Text Area, Radio Button, Check Box, Label and Command Button for the following entries:	

CLASS -XII

1 To Enter the Name - TextField 2 Select the gender - Radio button/ combo Box/ List Box 3 Select the department - Combo Box/ Radio Button/ List Box 4 Select any number of facilities - Check Box Each correct answer- ½ mark (½*4=2 marks)	SNo	Function	
 Select the department - Combo Box/ Radio Button/ List Box Select any number of facilities - Check Box 	1	To Enter the Name - TextField	
4 Select any number of facilities - Check Box	2	Select the gender - Radio button/ combo Box/ List Box	
	3	Select the department - Combo Box/ Radio Button/ List Box	
Each correct answer- ½ mark (½*4=2 marks)	4	Select any number of facilities - Check Box	
Buon concet and wer /2 main (/2 : 2 mains)	Each co	orrect answer- $\frac{1}{2}$ mark ($\frac{1}{2}$ *4=2 marks)	