## Sample Paper 2015

## : XII Class Subject : Informatics Practices

General Instructions : This question paper is divided into three sections

- 1.
- Section A consists 30 marks.
   Section B is of 20 marks each
   Section C is of 20 marks each
- **5.** Attempt all the parts of a section together.

	Section – A	
(1)Ar	nswer the following questions:	
(a)	Write the name of most suitable communication wireless channels for each of the following	1
(a)	situations	<b>–</b>
	(i) Communication between two offices in hilly areas.	
	(ii) Transfer data from one mobile phone to another	
(b)	Name two encodings used for Indian language computing.	1
(c)	Name the type of network formed when you connect your computer to internet.	1
(d)	Brightlands Girls Sr. Sec. School installed Windows 7 and Open Office for its computer lab	1
	computer lab. Which type of software is Windows 7 and Open Office?	
(e)	Heena says that the following numbers indicate an address : 20: AC : C2 : 56 : 3D : AB	2
	What is the above address called? What does the last three values of it stand for?	
(f)	What is an open standard? Give any two examples.	2
(g)	What do you understand by Network Security? Name two common threats to it.	2
(2) A	nswer the following questions:	
(a)	What makes XML different from HTML?	2
(b)	What is the use of LINK, ALINK, VLINK attribute of <body> tag?</body>	3
(c)	Create a java method that receives a number as parameter and returns 1 if the number is a	2
	multiple of three else returns 0.	
(d)	What is the difference between a class and an object?	2
(e)	Name any two methods associated with jOption dialog.	1
(3)4	Answer the following questions:	
(a)	Write the sql command to create a database named BLS if it is does not exist in Mysql.	1
(b)	Aanchal wants to replace all NULLS in the column COMM of table EMPL with 100. Write the	1
	sql command that solves her problem.	
(c)	Name any two sql commands which are committed by default.	1
(d)	Write a SQL command to view the constraints of EMP table.	1
(e)	A table Student has 5 columns and 3 rows.	2
	What will be the <b>degree</b> and <b>cardinality</b> of the table after execution of the given sql	
	statement	
	Update Student Set Session=2012;	<u> </u>
(f)	Distinguish between primary key and candidate key with suitable examples.	2
(g)	What do you understand by ALL or NONE in context of transaction handling?	2

			ection – B (Based			
(4)	RajMahal Hotel cor which bill amount i		Billing System. Give	en below the data en	ry screen through	
	🍇 RajMahal Hote	l				
	Customer Number	C001 ch 🗸 2 1200 144 1344	Type of Plate  Veg Non Veg  Exit Calculate Clear			
	Dete	Ducalifact		Diamon		
	Rate Veg	Breakfast 100	<b>Lunch</b> 200	<b>Dinner</b> 300	_	
	Non Veg	200	400	500		
(a)	Write the code for service tax (12% c				specified in the table,	5
(b)				box and set <b>Veg</b> as the	ne default option	2
(c)		• •		ialog with the followi <b>Yes</b> button then app		2
(d)	Write the code to r	make textfields	tfAmount, tfBillA	mount non editable		1
<u> </u>	nswer the followi					-
(a)	Write the output of int f=1,i=2; do{ f*=I; }while(++i<5); System.out.prin		code			2
(b)	Rewrite the follow	vina code seame	ent using for loor	without effecting the	e output of the code:	2
	int a=0,j while(a!=2 { j+ If(a else	; 20) -=a; a%5==0) { a+=5; } e { a+=1;}				_

	specification Private Members:						
	- Name	of type					
	- Account_no	of type	5				
	- Type_of_acco	, ,					
	- Balance Public Members:	of type	float				
	A <b>constructor</b> to in	itialize data member	rs as follows				
	- Name	NULL					
	- Account_no	100001					
	- Type_of_acco						
	- Balance	5000					
(d)	How has society benefit	ed from e-governan	ice?				
(e)	What benefit does an e-	business offers to the	he customers?				
	Answer the following g	•	Based on MYSQ	QL)			
( <b>6)</b> (a)	Answer the following qu Write output of the follo						
(a)	i) SELECT TRUNCAT						
	ii) SELECT DAYOFM						
	iii) SELECT MID('I m						
(1.)	iv) SELECT SQRT(PC						
(b)	Consider the tables ITE and give the outputs for		-	as for the statemen	ts(I) to $(IV)$		
	and give the outputs for	SQL queries (V) to	(VIII)				
		Tal	ble : ITEMS				
	ID	PNAME	PRICE		<b>ΟΤΥ</b>		
	T001 T002	Soap Paste	12.00 39.50	2007-03-11 2006-12-23	200 55		
		Deodorant		2008-12-23			
	T003 T004	Hair Oil	125.00 28.75	2007-8-12	46 325		
	T004	Cold Cream	66.00	2007-9-23	144		
	T005	Tooth Brush	25.00	2006-2-17	455		
			•				
	Table : COMPANY       ID     COMP     City						
				Mumphai			
		T001	HLL	Mumbai	_		
		T008	Colgate	Delhi			
		T008 T003	Colgate HLL	Delhi Mumbai			
		T008 T003 T004	Colgate HLL Paras	Delhi Mumbai Haryana			
		T008           T003           T004           T009	Colgate HLL Paras Ponds	Delhi Mumbai Haryana Noida	-		
		T008           T003           T004           T009           T006	Colgate HLL Paras Ponds Wipro	Delhi Mumbai Haryana Noida Ahmedabad			
		T008 T003 T004 T009 T006 PRICE * QTY only fo	Colgate HLL Paras Ponds Wipro or the city Mumba	Delhi Mumbai Haryana Noida Ahmedabad			
	ii. To display product	T008 T003 T004 T009 T006 PRICE * QTY only fo name, company nan	Colgate HLL Paras Ponds Wipro or the city Mumba	Delhi Mumbai Haryana Noida Ahmedabad	are equal to		
		T008 T003 T004 T009 T006 PRICE * QTY only fo name, company nam	Colgate HLL Paras Ponds Wipro or the city Mumba ne & price for the	Delhi Mumbai Haryana Noida Ahmedabad	are equal to		
	ii. To display product the IDs of company	T008 T003 T004 T009 T006 PRICE * QTY only fo name, company nan v. produced before 20	Colgate HLL Paras Ponds Wipro or the city Mumba ne & price for the	Delhi Mumbai Haryana Noida Ahmedabad	are equal to		
	<ul><li>ii. To display product the IDs of company</li><li>iii. To delete the items</li><li>iv. To increase the quadratic</li></ul>	T008 T003 T004 T009 T006 PRICE * QTY only fo name, company nan v. produced before 20	Colgate HLL Paras Ponds Wipro or the city Mumba ne & price for the 007. and paste.	Delhi Mumbai Haryana Noida Ahmedabad ai. ose items which IDs	are equal to		
	<ul><li>ii. To display product the IDs of company</li><li>iii. To delete the items</li><li>iv. To increase the quadratic</li></ul>	T008T003T004T009T006PRICE * QTY only foname, company name,produced before 20intity by 20 for soapFROM ITEMS WHERE	Colgate HLL Paras Ponds Wipro or the city Mumba ne & price for the 007. and paste.	Delhi Mumbai Haryana Noida Ahmedabad ai. ose items which IDs	·		
	<ul> <li>ii. To display product the IDs of company</li> <li>iii. To delete the items</li> <li>iv. To increase the quant</li> <li>v. SELECT COUNT(*)</li> </ul>	T008T003T004T009T006PRICE * QTY only foname, company name,produced before 20antity by 20 for soapFROM ITEMS WHEREPM ITEMS WHERE PF	Colgate HLL Paras Ponds Wipro or the city Mumba ne & price for the 007. and paste. E ITEMS.ID=COM RICE=SELECT MI	Delhi Mumbai Haryana Noida Ahmedabad ai. ose items which IDs IPANY.ID; N(PRICE) FROM ITE	·		

a)	Write an SQL of <b>Field</b>	query to c	reate the table <b>Type</b>	"Books" with I	the followin				
	Book_Id		Varchar(6)		Primary k				
	Book_Name		Varchar(25)		Not Null	,			
	Author_Nan		Varchar(30)						
	Publisher		Varchar(20)		Default `C	CBSE			
	Price		Integer		Between	100 and 1000			
	Туре		Varchar(15)						
	Quantity		Integer		Not Null				
	StudentNo 10	Class 7	Name Sammer	Game1 Cricket	Grade1 B	Game2 Swimming	Grade2 A		
b)	for (v) to (viii)		RTS given below	ble : SPORTS					
	StudentNo	Class	Name	Game1	Grade1	Game2	Grade2		
		-				Ŭ			
	11 12	8 7	Sujit Kamal	Tennis	A B	Skating	C B		
	12	7	Venna	Swimming Tennis	B C	Football Tennis	A		
	13	9	Archana	Basketball	A	Cricket	A		
	15	10	Arpit	Cricket	A	Athletics	C		
	10	10	inpit	Chienee		Tuneties	Ũ		
	both. ii. Display	the numbe	s of the students w or of students havir of students who h	ng game 'Crick	et'.				
	<ul><li>iv. Display the games taken by the students whose name starts with 'A'.</li><li>v. SELECT COUNT(*) FROM SPORTS;</li></ul>								
			CT Class FROM S						
			ass) FROM STUE	DENT;					
	vii. SELEC			,					

## Sample Paper 2015

## ANSWER - KEY

1.

General Instructions :

This question paper is divided into three sections

Section - A consists 30 marks.
 Section - B is of 20 marks each
 Section - C is of 20 marks each

5. Attempt all the parts of a section together.

	Section – A	
(1) A	nswer the following questions:	L
(a)	Write the name of most suitable communication wireless channels for each of the	1
	following situations	
Ans	(i) Communication between two offices in hilly areas. Microwave	
	(ii) Transfer data from one mobile phone to another Bluetooth	
(b)	Name two encodings used for Indian language computing.	1
Ans	Unicode and ISCII	
(c)	Name the type of network formed when you connect your computer to internet.	1
Ans	WAN	
(d)	Brightlands Girls Sr. Sec. School installed Windows 7 and Open Office for its	1
Ans	computer lab computer lab. Which type of software is Windows 7 and Open Office? Windows 7 - Proprietary software and Open Office - Open Source software	
(e)	Heena says that the following numbers indicate an address : 20: AC : C2 : 56 : 3D :AB	2
	What is the above address called? What does the last three values of it stand for?	_
Ans	MAC Address. The last three values are the card number.	
(f)	What is an open standard? Give any two examples.	2
Ans	Open standard are internationally accepted technical standards that guarantee that data	
	can be exchanged and accessed across platforms and applications .	
(g)	Examples : OGG, FLAC, HTML, SVG What do you understand by Network Security? Name two common threats to it.	2
Ans	Network security is needed to protect data during their transmission and to guarantee	2
	that data transmissions are authentic.	
	Two common threats are	
	(i) Trojan Horse	
	(ii) Worms	
	nswer the following questions:	_
(a)	What makes XML different from HTML?	2
Ans	<b>HTML</b> Contains Predefined tags, TAGS may or may not have a closing tag <b>XML</b> contains user defined tags , TAGS must have a closing tag.	
(b)		3
Ans	<b>LINK</b> :- This sets the colour of all of the non-visited links on the page.	
	<b>ALINK</b> :- This sets the colour of all of the active-visited links on the page.	
	VLINK :- This sets the colour of all of the visited links on the page.	
(c)	Create a java method that receives a number as parameter and returns 1 if the number	2
	is a multiple of three else returns 0.	
Ans	int checkMultiple(int n)	
	{ if(n%3==0)	
	return 1;	
	else	
	return 0;	
	}	
(d)	What is the difference between a class and an object?	2
Ans	A class is a blueprint that represents a set of similar objects.	
	An Object is an identifiable entity with some characteristics and behavior.	

(e)	Name any two met	hods associated	with jOption dialog.	(any two)	1
Ans	<pre>showInputDialog()</pre>		showConfirmDialog(	()	
	showMessageDialo		showOptionDialog()		
	nswer the followi				
(a)				<b>S</b> if it is does not exist in Mysql.	1
Ans	CREATE DATABASE				
(b)				<b>COMM</b> of table <b>EMPL</b> with <b>100</b> .	1
4.00	Write the sql comm				
Ans	SELECT IFNULL(con Update EMPL set co				
(c)	•		are committed by a	default	1
Ans	CREATE, ALTER and		The committee by t		<b>-</b>
(d)			constraints of EMP ta	able.	1
Ans	SHOW TABLE EMP;				-
(e)	A table Student has		•		2
Âns	What will be the o	degree and card	inality of the table	after execution of the given sql	
	statement				
	Update Student S		12;		
	Degree – 5 Cardina				
(f)				h suitable examples.	2
Ans	Primary Key – Unic				
(g)	Candidate key is a			transaction handling?	2
Ans				e carried out successfully or none	2
7410	of it.			carried out successfully of home	
		Sectio	on – B (Based on J	ava)	
(4)	RajMahal Hotel co			en below the data entry screen	
	through				
	which bill amount i	s calculated.			
	👩 RajMahal Hotel				
	🋓 RajMahal Hotel				
			Type of Plate		
	RajMahal Hotel Customer Number	C001			
	Customer Number	C001	• Veg		
	Customer Number				
	Customer Number Breakfast 🗹 Lund	C001	• Veg		
	Customer Number	C001	• Veg		
	Customer Number Breakfast 🗹 Lund	C001	• Veg		
	Customer Number Breakfast 🗹 Lund Dinner 🗹	C001	• Veg		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons	C001	Veg Non Veg Exit		
	Customer Number Breakfast 🗹 Lund Dinner 🗹	C001 :h ✔ 2	<ul> <li>Veg</li> <li>Non Veg</li> </ul>		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons	C001 :h ✔ 2 1200	Veg Non Veg Exit Calculate		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12%	C001 :h ✔ 2	Veg Non Veg Exit		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount	C001 :h ✔ 2 1200	Veg Non Veg Exit Calculate		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12%	C001 th 2 1200 144	Veg Non Veg Exit Calculate		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12%	C001 th 2 1200 144	Veg Non Veg Exit Calculate		
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount	C001 th 🗹 2 1200 144 1344	<ul> <li>Veg</li> <li>Non Veg</li> <li>Exit</li> <li>Calculate</li> <li>Clear</li> </ul>	Dinner	
	Customer Number Breakfast <table-cell> Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount</table-cell>	C001 th ✓ 2 1200 144 1344 Breakfast	Veg Non Veg Exit Calculate Clear Lunch	Dinner 300	
	Customer Number Breakfast 🗹 Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount <b>Rate</b> Veg	C001 th 2 1200 144 1344 Breakfast 100	Veg Non Veg Exit Calculate Clear	300	
	Customer Number Breakfast <table-cell> Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount Rate Veg Non Veg</table-cell>	C001 th ✓ 2 1200 144 1344 Breakfast 100 200	<ul> <li>Veg</li> <li>Non Veg</li> <li>Exit</li> <li>Calculate</li> <li>Clear</li> <li>Lunch</li> <li>200</li> <li>400</li> </ul>	300 500	5
(a)	Customer Number Breakfast <table-cell> Lund Dinner 🔊 Lund Dinner 🔊 Number of Persons Amount Service Tax @ 12% Total Bill Amount Rate Veg Non Veg Write the code for</table-cell>	C001 th 2 1200 144 1344 <b>Breakfast</b> 100 200 calculate button	Veg     Non Veg     Exit     Calculate     Clear     Lunch     200     400     to calculate amour	300500ot as per the rate specified in the	5
	Customer Number Breakfast <table-cell> Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount Rate Veg Non Veg Write the code for table, service tax (</table-cell>	C001 th ✓ 2 1200 144 1344 Breakfast 100 200 calculate button 12% of amount)	Veg Non Veg Exit Calculate Clear Lunch 200 400 to calculate amourt . Total bill amount=	300500at as per the rate specified in thetotal + service tax.	
(a) (b)	Customer Number Breakfast <table-cell> Lund Dinner 🗹 Number of Persons Amount Service Tax @ 12% Total Bill Amount Rate Veg Non Veg Write the code for table, service tax (</table-cell>	C001 th ✓ 2 1200 144 1344 Breakfast 100 200 calculate button 12% of amount)	Veg Non Veg Exit Calculate Clear Lunch 200 400 to calculate amourt . Total bill amount=	300500ot as per the rate specified in the	

(c)	Write the code to exit the application. Use " <b>Are you sure you want to Exit</b> " If only should be closed.		
(d)	Write the code to make textfields <b>tfAmour</b>	t, tfBillAmount non editable.	
(5) Ar (a) (b)	nswer the following questionsWrite the output of the following codeint f=1,i=2; do{ $f*=I;$ $\} while(++i<5);$ System.out.println(f);Rewrite the following code segment using code:int a=0,j; while(a!=20) 	$2$ $Qutput.$ $24$ for loop without effecting the output of the int a=0,j; for(a=0;a!=20) {     j+=a;     If(a%5==0)     {a+=5; }     else     {a+=1;}     a+=2;	2
(c)	a) Define a class Bank to represe	}	2
	bank account of a customer w following specification Private Members: - Name of type	<pre>ith the {     String Name;     Long Account_no;     char typeofaccount;     float balance;     public Bank()     {         Name =NULL;         Account_no=100001;         Type_of_account = `S';     } }</pre>	
(d)	<ul> <li>How has society benefited from e-governa</li> <li>Reduction in the number of trips to</li> <li>Reduction in waiting time</li> <li>Reduction in bribes.</li> <li>All the above factors resulted in red</li> </ul>	o offices.	2
(e)	<ul> <li>What benefit does an e-business offers to</li> <li>Improved speed of response</li> <li>Cost savings</li> <li>Improved efficiency and availability</li> <li>Improved customer service</li> </ul>		2

			Section C	(Based o	n MYSQ	ir)			
(6)	Answer t	he following q	uestions:						
(a)	i) SELECT TRUNCATE(222.78);       223         ii) SELECT DAYOFMONTH('2015-1-18');       18         iii) SELECT MID('I m loving it',-2,1);       1         iv) SELECT SQRT(POW(2,4));       4						2		
(b)			or SQL queries (v)	to (viii)		ds for the stateme	ents (i) to (iv)	8	
	Г	Table : ITEMS							
		ID	PNAME	PRI	CE	MDATE	QTY		
		T001	Soap	12.0	0	2007-03-11	200		
		T002	Paste	39.5	50	2006-12-23	55		
		T003	Deodorant	125.	.00	2007-6-12	46		
		T004	Hair Oil	28.7	'5	2007-9-25	325		
		T005	Cold Cream	66.0	00	2007-10-9	144		
	L	T006	Tooth Brush	25.0	00	2006-2-17	455		
			T	able : COMI	PANY				
			ID	СОМР		City			
			T001	HLL		Mumbai			
			Т008	Colgate	e	Delhi			
			Т003	HLL		Mumbai			
			T004	Paras		Haryana			
			Т009	Ponds		Noida			
			Т006	Wipro		Ahmedabad			

	i. To display PNA	AME, PRICE * C	TY only for the	city Mumbai.	
	Ans SELECT PNAM	1E, QTY*PRICE	FROM ITEMS		
	WHERE	ITEMS.ID = C	OMPANY.ID AN	D COMPANY.City='Mumbai';	
	ii. To display pro	duct name, cor	mpany name &	price for those items which IDs are equal to	
	the IDs of com		. ,		
			E FROM ITEMS	, COMPANY WHERE	
		CÓMPANÝ.ID;		,	
		,			
	iii. To delete the	items produced	l before 2007.		
	Ans DELETE FROI			07-01-01';	
	iv. To increase th	e quantity by 2	20 for soap and	paste.	
	Ans UPDATE ITEN	1S SET QTY = 0	QTY + 20		
			Soap' OR PNAM	1E = `Paste';	
	v. SELECT COUN	T(*) FROM ITE	MS WHERE ITE	MS.ID=COMPANY.ID;	
	Ans 4				
	vi. SELECT PNAM	E FROM ITEMS	WHERE PRICE	=SELECT MIN(PRICE) FROM ITEMS;	
	Ans Soap				
	vii. SELECT COUN	T(*) FROM COI	MPANY WHERE	COMP LIKE "P";	
	Ans 2				
	viii. SELECT PNAM	E FROM ITEMS	WHERE QTY<1	00;	
	Ans Paste				
	Deodorai	nt			
(7)	Answer the follo	wing question	ns:		2
(a)	Write an SQL quer	y to create the	table " <b>Books</b>	" with the following structure-	
	Field	Тур	e	Constraint	
	Book_Id	Varc	har(6)	Primary Key	
	Book_Name	Varc	har(25)	Not Null	
	Author_Name	Varc	har(30)		
	Publisher	Varc	har(20)	Default 'CBSE'	
	Price	Inte	ger	Between 100 and 1000	
	Туре		har(15)		
	Quantity	Inte		Not Null	
	Create table Boo	ks			
Ans	(				
	Book_Id	Varchar(6)	Primary Key,		
		Varchar(25)	Not Null,		
	Book_Name		,		
	Book_Name Author_Name	Varchar(30)	/		
	_	Varchar(30) Varchar(20)	, Default `CBSE	, ,	
	Author_Name				
	Author_Name Publisher	Varchar(20)		r, Between 100 and 1000),	
	Author_Name Publisher Price	Varchar(20) Integer			
	Author_Name Publisher Price Type	Varchar(20) Integer Varchar(15)	Check(Price E ,		

		Ta	ble : SPORTS					
StudentNo	Class	Name	Game1	Grade1	Game2	Grade2		
10	7	Sammer	Cricket	В	Swimming	A		
11	8	Sujit	Tennis	А	Skating	С		
12	7	Kamal	Swimming	В	Football	В		
13	7	Venna	Tennis	С	Tennis	A		
14	9	Archana	Basketball	А	Cricket	A		
15	10	Arpit	Cricket	А	Athletics	C		
<ul> <li>Ans Select count(*) from SPORTS Where Game1='Cricket' OR Game2='Cricket';</li> <li>iii. Display the names of students who have same game for both Game1 and Game2.</li> <li>Ans Select Name from SPORTS where Game1=Game2;</li> <li>iv. Display the games taken by the students whose name starts with 'A'.</li> <li>Ans Select Game1, Game2 from SPORTS where Name LIKE 'A%';</li> </ul>								
Ans 6		T(*) FROM SPOR CT Class FROM S						
Ans 7 8 9								

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