

**Sample Paper 2015**  
**CLASS : XII<sup>th</sup>**

**SUBJECT : INFORMATICS PRACTICES (065)**

**TIME : 3Hrs.**

**M.M. 70**

- Q1. (a). Which Protocol is used for transfer of hypertext documents of the Internet? [1]
- (b). Two doctors in the same room have connected their Palm Tops using Bluetooth for working on a group presentation. Out of the following what kind of network they have formed? [1]  
LAN, MAN, PAN, WAN
- (c). Arrange the following communication channels in ascending order of their data transmission rates. [1]  
Ethernet Cable, Optical Fibre, Telephone Cable, Co-axial Cable.
- (d). Which of the following is not a characteristic of Open Source Software? [1]
- ❖ Its source code is available for modification
  - ❖ Its owned by a company or an individual
  - ❖ It can be download from Internet
- (e). Jai Khanna is confused between the terms Domain Name and URL Explain the difference with the help of appropriate examples of each. [2]
- (f). Define any two threats to Network Security. [2]
- (g). Differentiate between Star and Bus Topology of networks. [2]
- Q2. (a). Ms. Sunita has developed a Java application through which the students of her school can view their marks by entering their admission number. The marks are displayed in various text fields. What should she do so that the students are able to view but not change their marks in text fields? [1]
- (b). What is the purpose of default clause in a switch statement? [1]
- (c). What is the use of <CENTER> tag in an HTML document? [1]
- (d). What is XML? [1]
- (e). What will be values of  $x$  and  $y$  after execution of the following code : [2]  
int  $x, y = 0$ ;  
for(  $x = 1; x \leq 5; ++x$ )  
 $y = x++$ ;  
 $--y$ ;
- (f). Write a function in Java that takes principal, rate and time as parameter and returns Simple Interest. [2]

(g). Mention the purpose of each of the following HTML tags : [2]  
 <B>, <LI>, <HR>, <TABLE>

Q3. (a). Which Command is used in MySQL to make the changes in database permanent? [1]

(b). While Creating a table 'Customer' Simrita forget the set of primary key for the table. Give the statement which she should write now to set the column 'CustID' as the primary key of the table? [1]

(c). What is the purpose of the following SQL query : [1]  
 SELECT MAX ( SALARY) FORM EMP;

(d). Rama is not able to change a value in a column to NULL. What constraint did she specify when she created the table. [1]

(e). In a student table, out of RollNumber, Name, Address which column can be set as Primary key and Why? [2]

(f). The Item\_No and Cost columns of a table "ITEMS" are given below : [2]

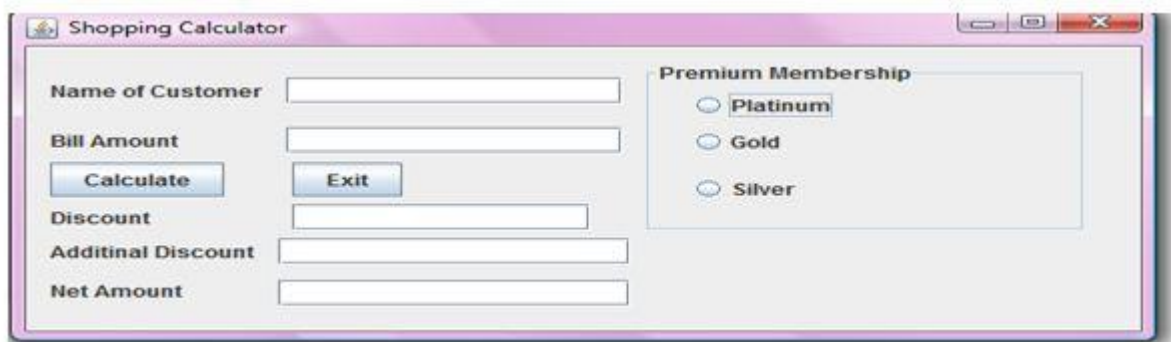
ITEM_NO	COST
101	5000
102	NULL
103	4000
104	6000
105	NULL

(g). A table "stock" in a database has 5 columns and constraints 17 records. What is the degree and cardinality of this table. [2]

Q4. (a). Define Inheritance with reference to Object Oriented Programming. [1]

(b). Read the following case study and answer the questions that follow :

The Shop n Store has developed the following data entry screen for its operations. The store offers three different types of membership discount schemes for its regular customers. Platinum members get a discount of 10% on all their purchases, Gold members get 5% and Silver members get 3% discount.



The list of controls for above interface is as follows:

Object Type	Object Name	Description
Text Field	ProducTF	To enter name of the product
	QtyTF	To enter quantity Sold
	RateTF	To enter rate per unit
	AmountTF	To display total amount as quantity *rate
	DiscountTF	To display the discount amount based on membership type
	NetTF	To display net amount as amount-discount
Radio Buttons	PlatinumRB	To Specify the Member Ship Type
	GoldRB	
	SilverRB	
Button	CalcBTN	To Calculate the amount, discount and net amount
	ExitBTN	To Close the Application

- (i). Write the code to disable the text fields AmountTF, DiscountTF and NetTF. [0.5]
- (ii). Write the code for CalcBTN to calculate the amount, discount and net amount as per given descriptions and conditions. [2.0]
- (iii). Write the code for ExitBTN to close the application, but before the application is closed it should check the net amount and if the net amount > 10,000 the membership of the customer should be upgraded and displayed. For example, if the customer already has Silver membership it should be upgraded Gold membership (similarly from gold to platinum) and he informed of the same using a message box. [1.5]
- (c). Define a class Book with the following specifications :
- Data Members of the Book are :
- BOOK\_NO            INTEGER
- BOOK\_TITLE        STRING
- NO\_OF\_BOOKS      INTEGER
- PROCE              FLOAT(PRICE PER COPY)
- TOTAL\_COST()      A function to calculate the total cost for number of copies.
- Member methods of the class book are :
- INPUT() Function to read No of Books, Book\_title, price.
- The following is the screen used to declare class to calculate total cost :

The screenshot shows a window titled "Book Price Calculation" with a standard Windows-style title bar. Inside the window, there are four text input fields arranged vertically, each with a label to its left: "Enter the Book Number", "Enter the Book Title", "Enter the price of the book", and "No of Copies". Below these fields, there are two buttons: "Calculate Price" and "Exit". At the bottom of the window, there is a label "Total Price" followed by an empty text input field.

The list of controls for the above form is as follows :

Control Type	Control name	Property Value
JTextField	JTextField1	txtBNo
	JTextField2	txtBName
	JTextField3	txtPrice
	JTextField4	txtNo
	JTextField5	txtTotal
JButton	JButton1	Calculate price
	JButton2	Exit

- (i). Define a class Book with required specification. [2.0]  
(ii). Write the code for calculate Price buttons click event procedure to operate the class Book's method. [1.5]  
(iii). Write the code for Exit Button to exit application. [0.5]

(d). Rewrite the following code using a for loop : [1]

```
int i=1, sum=0;
while (i<10)
{
sum+=i;
i+=2;
}
```

Q5. (a). Write SQL Commands for (a) to (e) and write the outputs for (f) on the basis of table : [1x10=10]

**Table : FURNITURE**

NO	ITEM NAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT
1	White Lotus	Double Bed	2002-02-23	3000	25
2	Pink feathers	Baby Cot	2002-01-29	7000	20
3	Dolphin	Baby Cot	2002-02-19	9500	20
4	Decent	Office Table	2002-02-01	25000	30
5	Comfort zone	Double Bed	2002-02-12	25000	30
6	Donald	Baby cot	2002-02-24	6500	15
7	Royal Finish	Office Table	2002-02-20	18000	30
8	Royal tiger	Sofa	2002-02-22	31000	30
9	Econo sitting	Sofa	2001-12-13	9500	25
10	Eating Paradise	Dinning Table	2002-12-19	11500	25

- (a) To show all the information about the Baby cots from the furniture table.
- (b) To list the itemname which are priced at more than 15000 from the furniture table.
- (c) To list itemname and type of those items, in which dateofstock is before 2002-02-01 from the furniture table in descending order of itemname.
- (d) To display itemname and dateofstock of those items, in which the discount percentage is more than 25 from the furniture table.
- (e) To count the number of items, whose TYPE is “Sofa” from the furniture table.
- (f) Give the output of following SQL statement :
  - (i). select count (distinct type) from furniture;
  - (ii). Select max(discount) from furniture;
  - (iii). Select avg(discount) from furniture where type=”Baby Cot”;
  - (iv). Select sum(price) from furniture where dateofstock < ’2002-02-12’;
  - (v). Select count (\*) from furniture;

Q6. Study the following tables Doctor and Salary and write SQL Commands

[1x4=4]

**Table : DOCTOR**

ID	NAME	DEPT	SEX	EXPERIENCE
101	John	ENT	M	12
104	Smith	ORRHPEdic	M	5
107	George	CARDIOLOGY	M	10
114	Lara	SKIN	F	3
109	K George	MEDICINE	F	9
105	Johnson	ORRHPEdic	M	10
117	Lucy	ENT	F	3
111	Bill	MEDICINE	F	12
130	Morphy	ORRHPEdic	M	15

**Table : SALARY**

ID	BASIC	ALLOWANCE	CONSULTATION
101	12000	1000	300
104	23000	2300	500
107	32000	4000	500
114	12000	5200	100
109	42000	1700	200
105	18900	1690	300
130	21700	2600	300

- (a). Display NAME of all doctors who are in “MEDICINE” having more than 10 years experience and basic more than 10000.
- (b). Display the average of all doctors working in “ENT” department using the DOCTOR and where as salary=basic + allowance.
- (c). Display the minimum ALLOWANCE of female doctors.

(d). Display the highest consultation fee among all male doctors.

Q7. Write the resulting output of the following :

[0.5 X 6 = 3]

- (a). Select SUBSTR('NetBeans IDE Programmer', 10,3);
- (b). select INSTR(TRIM(' ABS Public School '))5);
- (c). select 200 + SQRT(144);
- (d).select MOD ( ROUND ( 125.60,1) , 5 );
- (e). select LEFT('RAMESH SHARMA' , 5);
- (f). select ROUND(1045.439 , 2) + MOD (12.12 , 3)

Q8. Create table "Employee" as per following table Instance Chart.

[2]

Column Name	EmpID	EmpName	EmpAddress	EmpPhone	EmpSal	DeptID
Key Type	Primary					Foreign
Nulls/Unique		NOT NULL				
Fk Table						Department
Fk Column						Dept_ID
Data Type	NUMBER	VARCHAR	VARCHAR	VARCHAR	VARCHAR	VARCHAR
Length	6	20	30	10	9,2	2

Q9. a). How is e-learning beneficial to students ? Write one point.

[1]

b). How are our society benefited from e-governance ? write two points

[2]

c). Prikshit works for a School. She wishes to create controls on a form for the following functions  
Choose appropriate controls from Text field, Label, radio Button, Check Box, List box, Combo Box, Button and write in the third column.

[2]

S.No	Control used to	Control
1	Enter Admission Number	
2	Select Stream	
3	Select Subjects	
4	Clear the Form	

Q10. a). Differentiate between Container Tag and Empty Tag.

[1]

b). What is the wrong in the following coding ?

[1]

```
<HEAD> <MY WEB PAGE>
<TITLE> Welcome to my web page
</HEAD>
</TITLE>
```

c). Write HTML Code to display these Text :

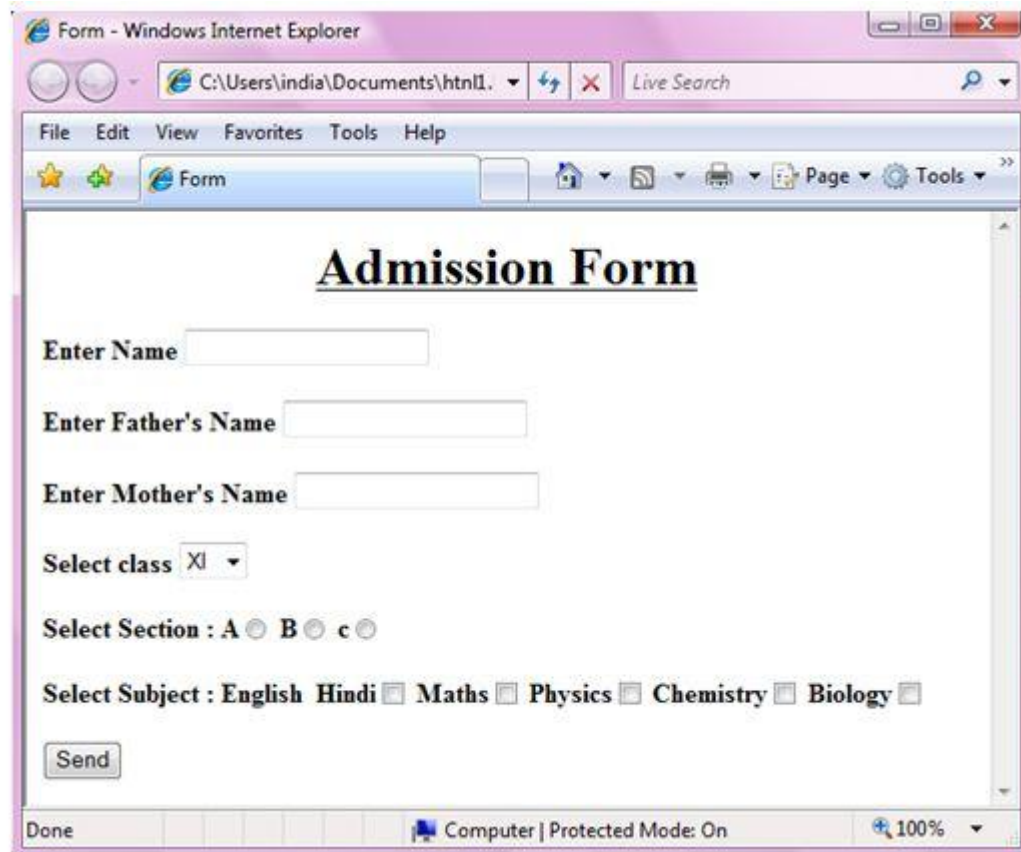
CaSO<sub>4</sub>

$$(a+b)^2=a^2+b^2+2ab$$

[2]

d). Write the html code to display the following controls :

[2]



The image shows a screenshot of a Windows Internet Explorer browser window displaying an HTML form titled "Admission Form". The browser's address bar shows the file path "C:\Users\india\Documents\htmlI.". The form contains the following elements:

- Enter Name**
- Enter Father's Name**
- Enter Mother's Name**
- Select class**
- Select Section :** A  B  c
- Select Subject :** English  Hindi  Maths  Physics  Chemistry  Biology
- Send**

The browser's status bar at the bottom indicates "Done", "Computer | Protected Mode: On", and "100%". A large watermark "WWW.E" is visible across the bottom half of the image.