

CLASS XI

GUESS PAPER

INFORMATICS PRACTICES

General Instructions :

MM : 70

1. All questions are compulsory.
 2. Answer in sequence.
 3. Put the questions no. properly.
 4. Programming Language **Java** & Database **MySQL**
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Q1.

- a. Answer the following questions :** (4)
- i. What is an operating system ? Give two examples of an operating system ?
 - ii. Give the relationship between Byte and gigabyte.
 - iii. What is a computer virus ? How can it affect your computer ?
 - iv. How is backup utility useful ? Is it necessary to take backup of data ?
- b. Give example for each of the following:** (2)
- i. A language processor. ii. A utility software.
 - iii. A package software. iv. A non-impact printer.
- c. Differentiate between :** (4)
- i. A volatile and non volatile memory. ii. Compiler and Interpreter.
 - iii. Machine language and High level language. iv. System s/w and Application s/w.

Q2.

- a. Answer the following questions :**
- i. What is e-Business ? (1)
 - ii. If you are e-Learner, how e-Learning will benefit you ? (2)
 - iii. How does the e-Business impact daily life of a common man ? (2)

Q3. Answer the following questions :

- i. Differentiate between : (2)
 - a. Char and Varchar
 - b. Primary Key and Unique Key
- ii. What is the significance of DELETE command ? How does the WHERE clause

restrict the query in MySQL ? (2)

iii. What are views ? How are they useful ? (2)

iv. Define SQL. Explain SQL subcategories giving at least one example in each category. (4)

Q4. Answer the following questions :

a. i) Find the output of the following program segment : (3)

```
int i,j,k,x=0;
for(i=0;i<5;++i)
{
  for(j=0;j<i;j++)
  {
    switch(i+j-1)
    {
      case -1 :
      case 0 :
        x+=1;
        break;
      case 1 :
      case 2 :
      case 3 :
        x+=3;
      default :
        x+=3;
    }
    System.out.println(x +"\t");
  }
}
System.out.println("\n");
System.out.println(x);
```

ii) What will be the final value of digit ? (2)

```
int digit ;
for(digit = 0; digit <= 9; digit++)
System.out.print(digit);
digit = 2 * digit ;
- - digit;
(a) 19 (b) -1 (c) 17 (d) 16
```

b. Find the syntax error(s) , if any in the following program ;

Rewrite the code after making the correction. (2)

```
int a = 5;
int b=6;sum=0;
System.out.print("a = " a);
sum = + a;
if (sum>0);
System.out.print("b = " +b);
else
System.out.print("a = " +a);
```

c. Rewrite the following code using for loop : (2)

```
int i,sum =0;
while(i<=10)
{
    sum =sum +i ;
    i++;
}
System.out.print(sum);
```

d. Write the equivalent switch statement for the following : (2)

```
if (code == 'R' || code== 'W')
System.out.println("Rainy Season ");
System.out.println("Winter Season ");
else if (code == 'S')
System.out.println("Summer Season ");
else
System.out.println("Spring Season ");
```

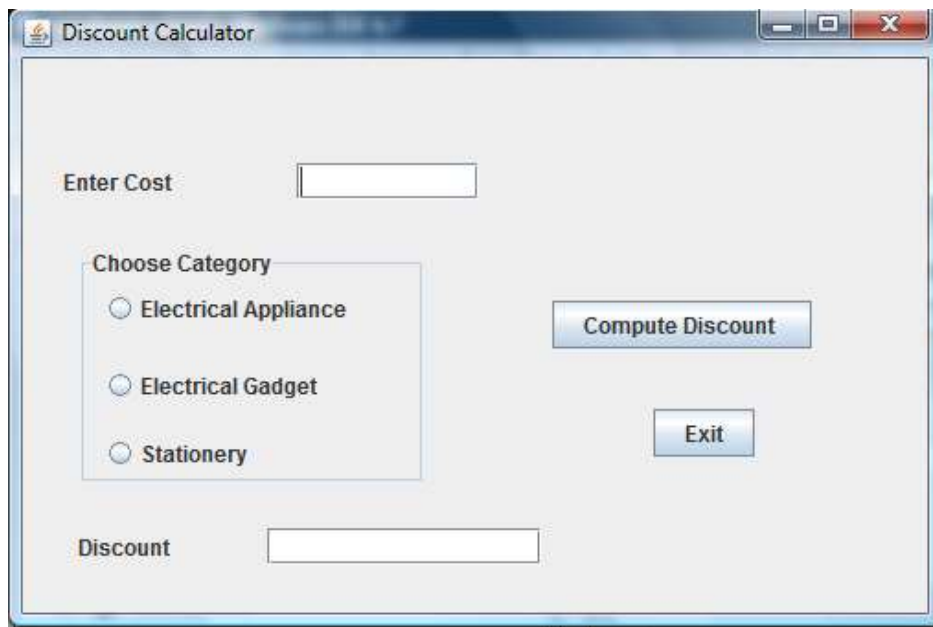
e. Create a Java Desktop Application to find the Discount of an item on the basis of Category of item[Electrical Appliance/Electronic Gadget / Stationary].The Categories will be implemented in JRadioButton controls. The Discount will be calculated as follows : (4)

COST	DISCOUNT(%)
<=1000	5
Otherwise	10

The extra Discount will be calculated as follows :

CATEGORY	DISCOUNT(%)
Electrical Appliance	3
Electrical Gadget	2
Stationary	1

- Calculate the total discount as : Discount on cost +Discount on Category
- Calculate the discount amount as : cost * discount
- On clicking of Exit Button ,it will exit the application



Control	Property Name	Property Value
JFrame	Title	Discount Calculator
Jlabel1	Text	Enter Cost
Jlabel2	Text	Discount
JTextField1	Variable Name	txtCost
JTextField2	Variable Name	txtDiscount
JRadioButton1	Text	Electrical Appliance
	Variable Name	rdbtn1
JRadioButton2	Text	Electrical Gadget
	Variable Name	rdbtn2

JRadioButton3	Text	Stationery
	Variable Name	rdbtn3
JButton1	Variable Name	btnComp
JButton2	Variable Name	btnExit

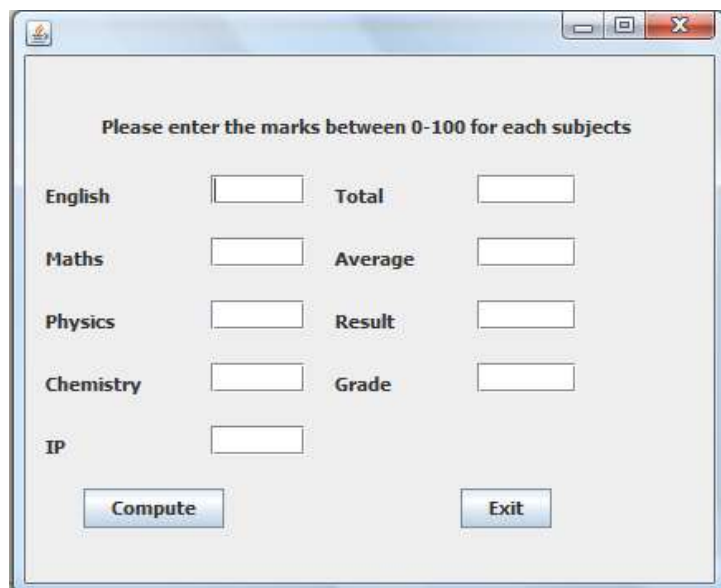
Q5.
a. Create a Java Desktop Application to perform the following calculations: (4)

- i) Calculation of Total and Average Marks

$$\text{Total} = \text{English} + \text{Maths} + \text{Physics} + \text{Chemistry} + \text{IP}$$

$$\text{Average} = \text{Total} / 5$$
- ii) Displaying the Distinction /Average Marks based on the Total Marks scored.
- iii) Displaying the grade (A,B,C,D,F) based on the average marks scored.
- iv) On clicking of Exit Button ,it will exit the application.

AVERAGE	RESULT	GRADE
>=75	Distinction	A
>=60	First Class	B
>=50	Second Class	C
>=40	Average	D
Otherwise	Fail	F



Enter five Subject marks.Also the entered marks should be between 0 and 100 for each subject.

Control	Property Name	Property Value
JFrame	Title	Calculation of Result
Jlabel1	Text	Please enter marks between 0-100 for each subjects
Jlabel2	Text	English
Jlabel3	Text	Maths
Jlabel4	Text	Physics
Jlabel5	Text	Chemistry
Jlabel6	Text	IP
Jlabel7	Text	Total
Jlabel8	Text	Average
Jlabel9	Text	Result
Jlabel10	Text	Grade
JTextField1	Variable Name	txtEng
JTextField2	Variable Name	txtMaths
JTextField3	Variable Name	txtPhy
JTextField4	Variable Name	txtChem
JTextField5	Variable Name	txtIP
JTextField6	Variable Name	txtTot
JTextField7	Variable Name	txtAvg
JTextField8	Variable Name	txtRes
JTextField9	Variable Name	txtGrd
JButton1	Variable Name	btnComp
JButton2	Variable Name	btnExit

- b. Write a method Min_Three that returns the smallest of three floating – point numbers. (2)
- c. Write a method CheckVowel for a Java class that accepts a character and check whether it is a vowel or a consonant.It returns 1 if character is a vowel else it returns 0. (2)
- d. An integer is said to be prime if it is divisible only by 1 and itself.For example 2,3,5 and 7 are prime but 4,6 and 9 are not prime.Write a method PrimeCheck that determines if a number is prime or not. (2)

Q6. Answer the following questions :

- a. Which command is used to change column size from VARCHAR(10) to VARCHAR(50). (1)
- b. What is a NULLvalue? (1)
- c. What do % and _ mean inside SELECT with LIKE statement? Explain with the help of examples of each. (2)
- d. After creating the "employee" database, you want to use it. Write the command that you should give. (2)
- e. What will be the putput of the following : (2)

- i. SELECT ROUND(124.44) + POW(4,3) ;
- ii. SELECT LOWER(SUBSTR(TRIM('INDIAN NATIONAL CONGRESS'),4,10));
- iii. SELECT LEFT(TRIM('IPL2010-12MAR'),5);
- iv. SELECT MONTHNAME(19-03-2010);

f. Write the purpose of the following clause using suitable example :

- i. DISTINCT
- ii. ORDER BY

(2)

Q7. Write SQL commands for the queries given from a to f and write the output of the SQL commands given in part g based on a table LIBRARY shown below:

(10)

Table: LIBRARY

No.	Title	Author	Subject	Publisher	Quantity	Price
1	Data Structure	Lipschute	DS	McGraw	4	217.00
2	DOS Guide	NORTRON	OS	PHI	3	175.00
3	Turbo C++	Robert Lafore	Prog	Galgotia	5	270.00
4	Dbase Dummies	Palmer	DBMS	PustakM	7	130.00
5	Mastering Windows	Cowart	OS	BPB	1	225.00
6	Computer Studies	French	FND	Galgotia	2	75.00
7	COBOL	Stern	Prog	John W	4	1000.00
8	Guide Network	Freed	NET	Zpress	3	200.00
9	Basic for Beginners	Norton	Prog	BPB	3	40.00
10	Advanced Pascal	Schildt	Prog	McGraw	4	350.00

- a) To display the title of all books with Price between 100 and 300.
- b) To display Title and Author of all the books having type Prog and published by BPB.
- c) To display the list of all the books with price more than 130 in ascending order of Qty.
- d) To display the list of all books whose quantity is less than 4.
- e) To display the publishers and the number of books of each book in the table.
- f) To insert a new book in the table LIBRARY.
- g) To increase the price of the book title 'TURBO C++' by Rs.30.
- h) To display the **Title** and **Total Price** of all Computer books. The Total Price is calculated as **Price * Qty**.
- i) Write the output of the following:
 - i. Select MIN(Price) from Library;
 - ii. Select Sum(Price * Qty) from Library where Qty > 3;
 - iii. Select Avg(Price) from Library where Qty < 4;

iv. Select Count(Distinct Publisher) from Library;

*****BEST OF LUCK*****