

INTERNATIONAL INDIAN SCHOOL, DAMMAM
SECOND TERMINAL EXAMINATION, DEC-2015

SUBJECT: INFORMATICS PRACTICES(COMMERCE)

TIME: 3HRS

CLASS: XI

MAX MARKS: 70

SET A

General Instructions:

1. All questions are compulsory.
 2. Marks are indicated against each question.
 3. Programming must be done in Java.
-

1. (a) MICR stands for _____ . 1
- (b) What is the difference between serial port and parallel port. 2
- (c) What is the function of the following: 2
 - (i) Joystick
 - (ii) Arithmetic and Logical Unit
- (d) Name any four data types available in Java. 1
- (e) Expand GUI and also define it. 2
- (f) What is the difference between DDL and DML commands in MySQL? Give examples of each. 2
2. (a) Ms. Samhita 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 textfields? 1
- (b) What is the purpose of default clause in a switch statement? 1
- (c) What is the difference between text field and text area components? 2
- (d) What is a variable and write any two rules to be followed while naming a variable in Java? 2
- (e) What will be the values of x and y after execution of the following code? 2

```
int x, y=0;
for(x=1; x<=5; ++x)
y=x++;
--y;
```
- (f) What will be the contents of Str1 and Str2 after the following code is executed? 2

```
String Str1, Str2;
Str1="Dear Friend";
Str2="Hello";
Str1=Str2.concat(Str1);
```
- (g) Write a Java code that takes value for a number (n) in JTextField1 and displays its cube (n*n*n) in JTextField2. 2
3. (a) Write MySQL command to open an existing database Employee. 1

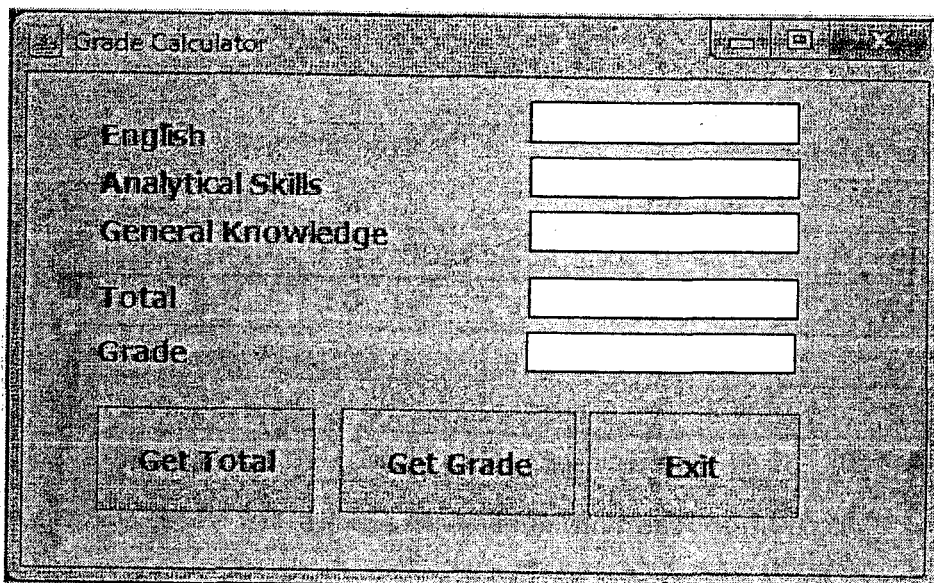
- (b) Ms. Mirana wants to remove the entire content of a table "BACKUP" along with its structure to release the storage space. What MySQL statement should she use? 1
- (c) Distinguish between ALTER TABLE and UPDATE commands of MySQL. 2
- (d) A table STUDENT has 6 rows and 3 columns. What is the degree and cardinality of the table. 1
- (e) What is the difference in the output of SELECT statement if we write the keyword ALL in place of DISTINCT? 2
- (f) The LastName column of a table "DIRECTORY" is given below: 2

LastName
Batra
Sehgal
Bhatia
Sharma
Mehta

Based on this information, find the output of the following queries:

- a) SELECT LastName FROM DIRECTORY WHERE LastName LIKE "_a%";
- b) SELECT LastName FROM DIRECTORY WHERE LastName NOT LIKE "%a";
- (g) Differentiate between keyword and clause with example. 2
- (h) A numeric column MONEY contains 34567.7896. Write a command to truncate MONEY 2
- (i) Up to 2 decimal places. (i.e. expected result is 34567.78)
- (ii) To the nearest 1000. (i.e. expected result is 34000)
- (i) Name the following functions in MySQL. 2
- (i) A string function that returns a number.
- (ii) A date function that returns a string.
4. (a) In a Java program, Rajat wants to use a variable to store the quantity of an item which may be in decimals. Write a suitable Java statement to declare the variable for the above mentioned purpose. 1
- (b) What will be the content of JTextArea1 after execution of the following statements? 1
- ```
JTextArea1.setText("Just\tAnother\nDay");
```
- (c) What message will be displayed after execution of the following code? 1
- ```
int Age=64, Relaxation=4;
int ModiAge=Age-Relaxation;
if(ModiAge<60)
    JOptionPane.showMessageDialog(Null, "NOT eligible");
else
```

- (d) How many times will the following loop execute? 1
- ```
int a=10, sum=0;
while(++a<15)
{
 sum=sum + a;
 System.out.println(a++);
}
```
- (e) Rewrite the following programme code using a if statement: 2
- ```
String Remarks;
int Code=Integer.parseInt(jTextField1.getText());
switch (Code)
{
    case 0 : Remarks = "100% Tax Exemption";
        break;
    case 1 : Remarks = "50% Tax Exemption";
        break;
    case 2 : Remarks = "30% Tax Exemption";
        break;
    default : Remarks = "Invalid Entry!";
}
```
- (f) What is the difference between `getSelectedIndex()` and `getSelectedItem()`? 2
- (g) Rewrite the following code using do-while loop. 2
- ```
int a, b, c=0;
for(a=15; a<=20; a++)
{
 c+=(a/b);
 System.out.println(a + ":" + b + ":" + c);
}
```
- (h) Aditya is a programmer at Edudel enterprises. He create the following GUI in NetBeans.



Help him write code for the above GUI application in Java for the following:

- (i) To calculate Total marks obtained and display in jTextField4 on the click of command button "Get Total". 2
- (ii) To calculate Grade obtained and display in jTextField5 on the click of command button "Get Grade". Criteria for Grade calculation is given below: 2

| Marks             | Grade |
|-------------------|-------|
| Above 80          | A     |
| Above 65 and <=80 | B     |
| Above 50 and <=65 | C     |
| <=50              | D     |

- (iii) To stop execution and exit from the application on the click of command button "Exit". 1

5. (a) Explain single row functions in MySql with example. 1

(b) Pooja, a student of class XI, created a table "Book". Price is a column of this table. To find the details of books whose prices have not been entered she wrote the following query: 2

**Select \* from Book where price = NULL;**

Help Pooja to run the query by removing the errors from the query and rewriting it.

(c) What is the purpose of ORDER BY clause? 1

(d) Write MySql command to create table STOCK with the following specification: 2

Table **STOCK** :

| Name of the Column | Data Type(Size) |
|--------------------|-----------------|
| ID                 | Integer         |
| Stock_Date         | Date            |
| Name               | Varchar(30)     |
| Price              | Decimal(8,3)    |

(e) Write the output of the following SQL queries: 2

- i. SELECT INSTR('INTERNATIONAL', 'NA');
- ii. SELECT LENGTH(CONCAT('NETWORK', 'ING'));
- iii. SELECT ROUND(563.345, -2);
- iv. SELECT DAYOFYEAR('2014-01-30');

6. (a) In a database **SCHOOL**, there is a Table **GRADESHEET** with the following contents:

Table: **GRADESHEET**

| REGNO | NAME  | MARKS | TEACHER     | ADMNO |
|-------|-------|-------|-------------|-------|
| 10004 | Mohit | 90    | Ms. Nathani | Z101  |
| 10211 | Mukta | 85    | Mr. Gokhale | Z109  |
| 10923 | Mohit | 92    | Mr. Gokhale | Z120  |
| 10313 | Sana  | 90    | Ms. Nathani | Z234  |

- (i) Identify the attributes which can be chosen as Candidate Key in the table GRADESHEET

- (b) Consider the following table **EMPLOYEE** with details about Employees in a bank. Write command of SQL for (i) to (vi) and output for (vii) to (x).

Table: **EMPLOYEE**

| ENO | ENAME  | SALARY | ZONE  | AGE | GRADE | DEPT |
|-----|--------|--------|-------|-----|-------|------|
| 1   | Mona   | 70000  | East  | 40  | A     | 10   |
| 2   | Muktar | 71000  | West  | 45  | B     | 20   |
| 3   | Nalini | 60000  | East  | 26  | A     | 10   |
| 4   | Sanaj  | 65000  | South | 36  | A     | 20   |
| 5   | Surya  | 58000  | North | 30  | B     | 30   |

- (i) To display the details of all employees, who belong to East ZONE. 1
- (ii) To display the details of all employees in descending order of age. 1
- (iii) To increase the salary of the employees belonging to DEPT 30 by 5000 1
- (iv) To display the ENO, ENAME and SALARY of all the employees whose age is between 25 and 35 (both values inclusive). 1
- (v) To display the ENAME, SALARY, ZONE AND INCOMETAX ( Note: INCOMETAX to be calculated as 30% of salary) of all the employees with appropriate column headings. 1
- (vi) To add a new employee with the details: 6, 'Harry', 63000, 'West', 'B', 30. 1
- (vii) SELECT ENAME, SALARY, ZONE FROM EMPLOYEE WHERE AGE>36 AND DEPT=10; ½
- (viii) SELECT DISTINCT GRADE FROM EMPLOYEE; ½
- (ix) SELECT MID(ENAME, 1,3) FROM EMPLOYEE WHERE ZONE LIKE "%h"; ½
- (x) SELECT CONCAT(ENAME, 'earns' , SALARY) FROM EMPLOYEE WHERE DEPT=20; ½

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**SET B**

**General Instructions:**

1. All questions are compulsory.
  2. Marks are indicated against each question.
  3. Programming must be done in Java.
- 

1. (a) OCR stands for \_\_\_\_\_ . 1
- (b) What is the difference between RJ45 port and RJ11 port. 2
- (c) What is the function of the following: 2
  - (i) Scanner.
  - (ii) Main or Primary memory.
- (d) Name any four data types available in Java. 1
- (e) Expand IDE and also define it. 2
- (f) What is the difference between DDL and DML commands in MySQL? Give examples of each. 2
2. (a) Zia is working with list box. She has placed a list control on her form to display the list of all items available in her shop. She wants to allow the user to select multiple items from her list control. Which property of JList should she use to do the same? 1
- (b) What is the purpose of break statement in a switch statement? 1
- (c) What is the use of source tab and design tab? 2
- (d) What is the difference between selection statements and repetition statements in Java? 2
- (e) What will be the values of num1 and num2 after execution of the following code? 2

```
int num1, num2=0;
for(num1=100; num1<=101; num1++)
{
num2=num1+2;
--num2;
}
```
- (f) What will be the contents of Str1 and Str2 after the following code is executed? 2

```
String Str1, Str2;
Str1="Spread";
Str2="Peace";
Str1=Str1.concat(Str2);
```
- (g) Write a Java code that takes value for a number (n) in JTextField1 and displays its square (n\*n) in JTextField2. 2

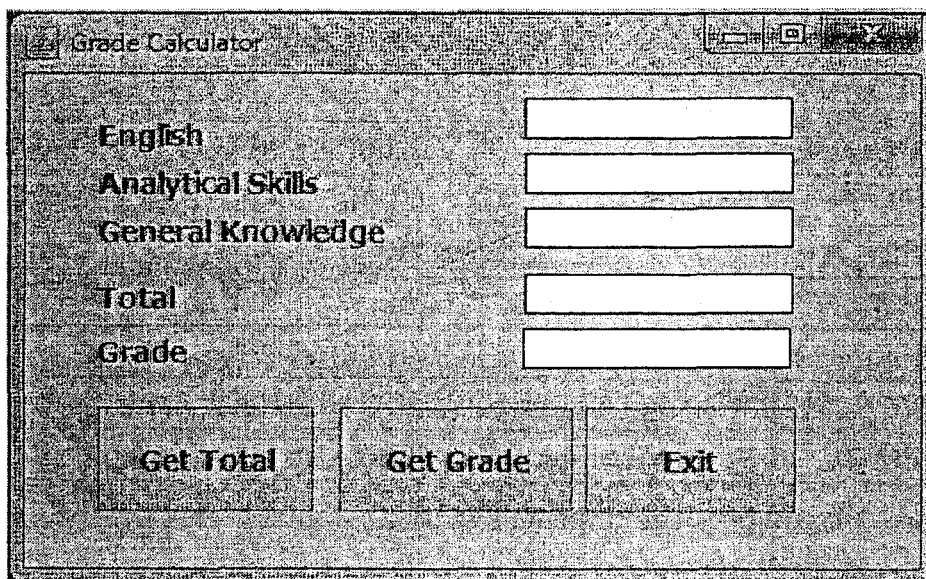
3. (a) Write MySQL command to see the structure of an already existing table **SHOPPE**. 1
- (b) Ms. Mirana wants to remove the entire content of a table "**BACKUP**" along with its structure to release the storage space. What MySQL statement should she use? 1
- (c) Distinguish between DELETE and DROP TABLE commands of MySQL. 2
- (d) A table STUDENT has 8 rows and 5 columns. What is the degree and cardinality of the table? 1
- (e) What is the difference in the output of SELECT statement if we write the keyword ALL in place of DISTINCT? 2
- (f) The **LastName** column of a table "**DIRECTORY**" is given below: 2

| LastName |
|----------|
| Batra    |
| Sehgal   |
| Bhatia   |
| Sharma   |
| Mehta    |

Based on this information, find the output of the following queries:

- a) SELECT LastName FROM DIRECTORY WHERE LastName LIKE "\_\_a%";
- b) SELECT LastName FROM DIRECTORY WHERE LastName NOT LIKE "%a";
- (g) Differentiate between keyword and clause with example. 2
- (h) A numeric column MONEY contains 34567.7896. Write a command to truncate MONEY 2
- (i) Up to 3 decimal places. (i.e. expected result is 34567.789)
- (ii) To the nearest 100. (i.e. expected result is 34500)
- (i) Name the following functions in MySQL. 2
- (i) A string function that returns a string.
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4. (a) In a Java program, Rajat wants to use a variable to store the quantity of an item which may be in decimals. Write a suitable Java statement to declare the variable for the above mentioned purpose. 1
- (b) What will be the content of JTextArea1 after execution of the following statements? 1
- ```
JTextArea1.setText("GREAT\nCOUNTRY\tINDIA");
```
- (c) What message will be displayed after execution of the following code? 1
- ```
int Age=64, Relaxation=4;
int ModiAge=Age-Relaxation;
if(ModiAge<=60)
 JOptionPane.showMessageDialog(Null, "NOT eligible");
else
```

- (d) How many times will the following loop execute? 1  
int a=10, sum=0;  
while(++a<15)  
{ sum=sum + a;  
System.out.println(a);  
}
- (e) Rewrite the following programme code using a switch statement: 2  
int option=Integer.parseInt(jTextField1.getText());  
if (option==1)  
jTextField2.setText("Regular employee");  
else if (option==2)  
jTextField2.setText("On Probation");  
else if (option==3)  
jTextField2.setText("Visiting faculty");  
else if (option==4)  
jTextField2.setText("On Contract");  
else  
jTextField2.setText ("Invalid option!");
- (f) What is the difference between isSelected( ) and setSelected( )? 2
- (g) Rewrite the following code using while loop. 2  
int a, b, c=0;  
for(a=15; a<=20; a++)  
{  
c+=(a/b);  
System.out.println( a + ":" + b + ":" + c);  
}
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(b) Pooja, a student of class XI, created a table "Book". Price is a column of this table. To find the details of books whose prices have not been entered she wrote the following query: 2

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(c) What is the purpose of WHERE clause? 1

(d) Write MySql command to create table **STOCK** with the following specification: 2

Table **STOCK** :

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|--------------------|-----------------|
| ID                 | Integer         |
| Stock_Date         | Date            |
| Name               | Varchar(30)     |
| Price              | Decimal(8,3)    |

(e) Write the output of the following SQL queries: 2

- i. SELECT INSTR('INTERNATIONAL', 'T');
- ii. SELECT LCASE(CONCAT('NETWORK', 'ING'));
- iii. SELECT ROUND(563.345, -1);
- iv. SELECT MONTH('2014-01-30');

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| 4   | Sanaj  | 65000  | South | 36  | A     | 20   |
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- (i) To display the details of all employees, who belong to South ZONE. 1
- (ii) To display the details of all employees in descending order of age. 1
- (iii) To increase the salary of grade B employees by 5000. 1
- (iv) To display the ENO, ENAME and SALARY of all the employees whose age is not between 25 and 35 (both values inclusive). 1
- (v) To display the ENAME, SALARY, ZONE AND INCOMETAX ( Note: INCOMETAX to be calculated as 30% of salary) of all the employees with appropriate column headings. 1
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- (viii) SELECT DISTINCT ZONE FROM EMPLOYEE; ½
- (ix) SELECT MID(ENAME, 3) FROM EMPLOYEE WHERE ZONE LIKE "%t"; ½
- (x) SELECT CONCAT(ENAME, 'earns' , SALARY) FROM EMPLOYEE WHERE DEPT=20; ½

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