

**SAMPLE PAPER**  
**Class- XII – Commerce**  
**Sub – Informatics Practices**

**TIME: 3hrs.**

**MM: 70**

**General Instruction**

1. All questions are compulsory.
2. Programming language : JAVA

**A. Answer the following questions.**

- A.1 Which protocol is used to control the transfer of E-Mail message on internet? (1)
- A.2 Write the names of two propriety software. (1)
- A.3 Which symbol is used to separate the IP address? (1)
- A.4 In which topology, each node is connected to other all nodes directly? (1)
- A.5 Define the followings: (a) HUB (b) Switch (2)
- A.6 What is MAC Address? What does the first three bytes indicate? (2)
- A.7 Explain any two threats to Network Security. (2)

**B. Answer the following questions:**

- B.1 Which property would you set for setting the password character as '\$'? (1)
- B.2 Write one disadvantage of switch statement. (1)
- B.3 Which is the smallest heading tag? (1)
- B.4 Which tag is used to define header row of a table? (1)
- B.5 What will be the contents of jLabel1 after executing the following code: (2)

```
String str1 = "Informatics", str2 = "Practices";  
int L1,L2;  
L1 = str1.length();  
L2 = str2.length();  
if ( L1 == L2 )  
    jLabel1.setText( "Strings are of same length");  
else
```

- ```
    jLabel1.setText( "Strings are of different length" );
```
- B.6 Write a function in java which accepts length and breadth of a rectangle and returns its area. Formula to calculate area of rectangle is length \* breadth. (2)
- B.7 Write two differences between HTML and XML. (2)

**C Answer the following questions.**

- C.1 Which command is used in MySQL to make the changes permanent? (1)
- C.2 Sujata has created a table in MySQL. Later on she found that the width of name column is not sufficient for entering some long names. She wants to increase the width of the name column. Which command she should give to do this? (1)

- C.3 What are constraints? Explain any two. (2)
- C.4 What is join? (1)
- C.5 Differentiate between Candidate and Alternate Key. (2)
- C.6 The COACHNAME column of a table “Club” is given below: (1)

| CoachName |
|-----------|
| Raghav    |
| Sumit     |
| Anurag    |
| Rohit     |
| Lucky     |

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

- C.6.1 SELECT CoachName FROM Club where CoachName like ‘ %a% ’;
- C.6.2 SELECT CoachName FROM Club where CoachName like ‘ \_u% ’;
- C.7 A table book in a database has 5 columns and no rows in it. What is its degree? What will be its degree if 3 rows are added in the table. (1)

**D. Answer the following questions**

- D.1 Define a base class and derived class. (1)
- D.2 What will be the contents of sum after executing the following code: (2)

```
int i=2, j=5, sum=0;
while( i < j ) {
    sum += i ;
    i++; }

```

- D.3 What is case sensitive? Is Java case sensitive? (1)
- D.4 Rewrite the following code fragment using if. (2)

```
char ch = 'N';
switch ( ch )
{
    case 'E' : eastern ++ ; break;
    case 'W' : western ++ ; break;
    case 'N' : northern ++ ; break;
    case 'S' : southern ++ ; break;
}

```

- D.5 The following code has some error (s). Rewrite the correct code underlining all the corrections made: (2)

```
int i = 2, j = 5;
while j > i
{
    jTextField1.getText( “ j is greater “ );
}

```

```

j -- ;
++ i ; }

```

Joptionpane.showMessageDialog(“Hello”);

D.6 What will be the contents of jTextField1 and jTextField2 after executing the following code: (2)

```

String str = “Mahatma”;
jTextField1.setText( str.substring(4));
jTextField2.setText( “ “ + str.length( ) );

```

D.7 DAV Public School has computerized its student performance system. The following is the data entry form in java used:

| Object Type    | Object Name  | Description                                  |
|----------------|--------------|----------------------------------------------|
| Frame          | jFrame       | The Frame Object                             |
| Command Button | cmdCalculate | To calculate the total, percentage and grade |
|                | cmdClear     | To clear all the textfields                  |
|                | cmdQuit      | To quit from application                     |
| Radio Button   | jRB1         | To select medical System                     |
|                | jRB2         | To select Non-Medical System                 |
| Text Fields    | jTextField1  | To accept name                               |
|                | jTextField2  | To accept class                              |
|                | jTextField3  | To accept Sub1                               |
|                | jTextField4  | To accept Sub2                               |
|                | jTextField5  | To accept Sub3                               |
|                | jTextField6  | To accept Sub4                               |
|                | jTextField7  | To accept Sub5                               |
|                | jTextField8  | To display total                             |
|                | jTextField9  | To display percentage                        |
|                | jTextField10 | To display grade                             |

D.7.1 On clicking the calculate button: Total marks should be calculated as sum of all the five subjects and percentage and grade. To calculate the grade: (3)

**For Medical Students**

| Percentage   | Grade |
|--------------|-------|
| >=85         | A1    |
| >=60 and <85 | A2    |
| <60          | B1    |

**For Non-Medical Students**

| Percentage   | Grade |
|--------------|-------|
| >=80         | A1    |
| >=60 and <80 | A2    |
| <60          | B1    |

D.7.2 On clicking the Clear Button, the contents of all the textfields should be cleared. (2)

D.7.3 On clicking the Exit Button will close the application. (1)

**QE Answer the following questions:**

E.1 Differentiate between CHAR & VARCHAR data types. (2)

E.2 Write the output of the following SQL queries: (2)

E.2.1 Select SUBSTR( "TITANIC", 2,3);

E.2.2 Select LENGTH ( 'C.B.S.E.' );

E.2.3 Select TRUNCATE(3.4829,1);

E.2.4 Select CONCAT( 'Around', 'The', 'World' );

E.3 Consider the table Movie given below. Write commands in MySQL for (E.3.1) to (E.3.4) and output for (E.3.5) to (E.3.8) (6)

| S.No | Title   | Type   | Stars     | Qty | Price |
|------|---------|--------|-----------|-----|-------|
| 1    | Hum     | Drama  | Amitabh   | 3   | 90    |
| 2    | Partner | Comedy | Govinda   | 5   | 80    |
| 3    | Darwaja | Horror |           | 2   | 60    |
| 4    | Dhamal  | Comedy | Sanjay D  | 4   | 85    |
| 5    | Veerana | Horror | Hemant    | 1   | 50    |
| 6    | Dil     | Drama  | Amir Khan | 3   | 75    |

E.3.1 To display a list of all movies with price more than 70 and sorted by price in descending order.

E.3.2 List the title, type and stars of comedy movies.

E.3.3 List Movie No, Movie Name and value of all movies. ( Note – Value can be calculated as Qty \* Price )

E.3.4 Display all the information of movies whose Title's second last letter is alphabet 'a'.

E.3.5 Select Max( Price ) from movie;

E.3.6 Select Title, Type from movie where Stars is NULL;

E.3.7 Select S.No, Title from movie where stars = 'Govinda';

E.3.8 Select distinct type from movie.

E.4 Write a SQL command to create a table "LIBRARY" with the following structure: (2)

| Field       | Type        | Constraints |
|-------------|-------------|-------------|
| Book_no     | Integer (4) | Primary Key |
| Title       | Varchar(40) | Not Null    |
| Author      | Varchar(30) |             |
| Publisher   | Varchar(30) |             |
| Pages       | Integer (4) |             |
| Date_of_Pub | Date        |             |

E.5 In a database, there two tables 'Employee' and 'Dept' as shown below: (2)

**DEPT**

| DEPT_CODE | DEPT_NAME |
|-----------|-----------|
| MKTG      | Marketing |
| PERS      | Personal  |
| ACCT      | Accounts  |

**EMPLOYEE**

| EMP_NO | EMP_NAME | SEX | DEPT_CODE |
|--------|----------|-----|-----------|
| 1      | Nidhi    | F   | ACCT      |
| 2      | Rajesh   | M   | MKTG      |
| 3      | Pankaj   | M   | PERS      |
| 4      | Puneet   | M   | ACCT      |
| 5      | Amita    | F   | MKTG      |

E.5.1 Identify the foreign key column in the table Employee.

E.5.2 How many rows and columns will be there in the Cartesian Product of these two tables?

E.6 Consider the tables PLAYER & COACH given below: (6)

**PLAYER**

| Player_ID | Player  | Sex | Coach_ID |
|-----------|---------|-----|----------|
| 1         | Vinod   | M   | 1        |
| 2         | Rajni   | F   | 3        |
| 3         | Rahul   | M   | 1        |
| 4         | Ankita  | F   | 3        |
| 5         | Vishesh | M   | 2        |

## COACH

| Coach_ID | Coach_Name   | Game    |
|----------|--------------|---------|
| 1        | W.S. Sangwan | Hockey  |
| 2        | Sushil       | Cricket |
| 3        | Suman Malik  | Kho-Kho |

With the reference of these tables, write commands in SQL for (E.6.1) to (E.6.2) and output for (E.6.3) given below:

- E.6.1 Display the Player Name, Sex and corresponding Coach Name for all players.  
E.6.2 Display the Player Name and Coach Name of Female players.  
E.6.3 Select Player, Sex from Player, coach where player.coach\_id = coach.coach\_id and game = 'Hockey';

### QF Answer the following questions:

- F.1 What is Back End? (1)  
F.2 Write two positive social impacts of E-Governance. (2)  
F.3 What controls will you suggest for the following: (2)

| SNo | Control used to                      | Control |
|-----|--------------------------------------|---------|
| 1   | A Mouse Click                        |         |
| 2   | Typed Text (multiple lines)          |         |
| 3   | Multiple choices from a set          |         |
| 4   | Multiple items from a group of names |         |



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