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### MODEL QUESTION PAPER 2012-13

SET-2

### INFORMATICS PRACTICES (065)

1.

- a) Mrs. Geetha is surfing over internet and he wants to know the IP Address of particular website. Do you know which process he has to do to obtain IP Address from website's name? 1
- b) Mr. Loknath wants to send/receive e-mail over TCP/IP networks(internet). Which protocol he can use for this purpose? 1
- c) An Internet Service Provider has a network within a city area. Which type of network is it? 1
- d) Which transmission technology can we use for connecting two countries over an ocean? 1
- e) Differentiate between HUB and SWITCH devices. 2
- f) Explain following terms. 2  
(1) Apache Server (2) Linux
- g) What is Font ? Which are two parameters for to categorized them? 2

2.

- (a) While working with Netbeans, Ashita included a TextArea control which contains a list of students. What code she should write to add one more student name at the end of the TextArea? (1)
- (b) In what sequence the initialization, testing and execution of body is done in a *for loop*. (1)
- (c) Write HTML code to produce a Textarea with 10 rows and 30 columns. (1)
- (d) What do you mean by web browser? (1)
- (e) How many times does the following loop execute? What is its type (Entry controlled or Exit controlled) ? (2)
- ```
int x=2,y=20;
while( x <= y)
{
    JOptionPane.showMessageDialog(null, "" + x);
```

}

(f) Write a function in java that takes an integer number as parameter and returns its sum of digits. (2)

(g) Which tag is used to specify : (2)

- a. Table data
- b. Table header
- c. Table row
- d. Table border

3.

a) Raju wants to change the schema of the table “ STUDENT ” which already exists in the database. Which command he will use. 1

b) Neha is not able to enter the details of students born after ‘ 30-Mar-2007’. Which constraint might be specified when the table was created. 1

c) What is the purpose of the following query. 1  
SELECT COUNT(\*) FROM ELECTION GROUP BY city.

d) What is the role of UNIQUE constraint? How is PRIMARY KEY constraint differ from UNIQUE key constraint. 2

e) What is the significant of ORDER BY command in SQL query. 2

f) ActivityName and ParticipantNo of table ACTIVITY given below 2

| Activity Name | ParticipantNo |
|---------------|---------------|
| Relay 100X 4  | 16            |
| High Jump     | 10            |
| Shot Put      | 12            |
| Long Jump     | 12            |
| Discuss Throw | 10            |

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

a) SELECT COUNT( DISTINCT ParticipantNo) FROM ACTIVITY;

b) SELECT ActivityName FROM ACTIVITY WHERE ActivityName LIKE ‘%p’;

g) A table Employee in a database has a 4 columns and 2 rows in it. What is cardinality and degree if 3 more columns are added in the table? 1

4.

(a) What is an abstract class? 1

(b) Given an int variable K with value 102. It is to be converted into equivalent string i.e “253”. What are the two ways of doing that? 1

(c) What will be the content of JTextArea1 after executing the following statement :  
jTextArea1.setText(“ java is \nwonderful programming \tlanguage “); 1

(d) Rewrite the following program code using do while loop. 2

```
int i=1, sum=0;
```

```
while (i<15)
```

```
{
```

```
    sum +=i;
```

```
    i +=2;
```

```
}
```

(e) Rewrite the corrected following code by underlining the corrected area 2

```
int k, l = 6;
```

```
    int k, l = 6;
```

```
    k==l+6,
```

```
if ( k=l)
```

```
{
```

```
    jTextField1.getText(“K And L are Unequal”);
```

```
}
```

```
else
```

```
    jTextField1.setText(K And L are equal);
```

(f) What will be the contents of JTextField1 and JTextFiled2 after executing the following code 2

```
jTextField1.setText(Math.round(2.5)+”);
```

```
jTextField2.setText(“Micro”.concat(“System”));
```

- (g) ABC Sales Enterprise wants developed a software to make the bill for their customer. GUI for the application given below.

Write the java statement for the following requirements.

- a) Write the statement to make the text fields (txtDiscount) and txtNet non-editable. 2

- b) Calculate discount and net amount for calculate button based on the following criteria. 2

| Sales Amount | Discount |
|--------------|----------|
| $\geq 5000$  | 5        |
| $\geq 3000$  | 3        |
| $\geq 1000$  | 1        |

- c) Write the statement to clear all textfields when clicking the clear button. 1
- d) Write the java statement for the exit button to close the application. 1

5.

- a) Differentiate CHAR and VARCHAR data types? 2
- b) Write the output of the following SQL queries. 2

- (i) SELECT CONCAT(LOWER('Class'), UPPER('xii'));
- (ii) SELECT SIGN(2);
- (iii) SELECT DAYOFYEAR('2010-02-13');
- (iv) SELECT MOD(11,4);

c) Write the SQL command for the following on the basis of given table. 6

**Table : FURNITURE**

| NO | ITEMNAME        | TYPE         | DATEOFSTOCK | PRICE | DISCOUNT |
|----|-----------------|--------------|-------------|-------|----------|
| 1  | White lotus     | Bouble bed   | 23/02/2002  | 30000 | 25       |
| 2  | Pink feather    | Baby cot     | 20/01/2002  | 7000  | 20       |
| 3  | Dolphin         | Baby cot     | 19/02/2002  | 9500  | 20       |
| 4  | Decent          | Office Table | 01/01/2002  | 25000 | 30       |
| 5  | Comfort zone    | Double bed   | 12/01/2002  | 25000 | 25       |
| 6  | Donald          | Baby cot     | 24/02/2002  | 6500  | 15       |
| 7  | Royal Finish    | Office Table | 20/02/2002  | 18000 | 30       |
| 8  | Royal tiger     | Sofa         | 22/02/2002  | 31000 | 30       |
| 9  | Econo sitting   | Sofa         | 13/12/2001  | 9500  | 25       |
| 10 | Eating Paradise | Dining table | 19/02/2002  | 11500 | 25       |

- (i) To show all information about the Baby cots from the FURNITURE table.
- (ii) To list the ITEMNAME which are priced at more than 15000 from the FURNITURE table.
- (iii) To list ITEMNAME and TYPE of those items, in which DATEOFSTOCK is before 22/01/2002 from the FURNITURE table in descending order of ITEMNAME.

- (iv) To count the number of items, whose TYPE is sofa from FURNITURE table.

**Give the output of the following sql statements.**

- (v) SELECT COUNT( DISTINCT TYPE) FROM FURNITURE;  
 (vi) SELECT MAX(DISCOUNT) FROM FURNITURE;  
 (vii) SELECT AVG(DISCOUNT) FROM FURNITURE WHERE TYPE='Baby cot';  
 (viii) SELECT SUM(PRICE) FROM FURNITURE WHERE DATEOFSTOCK<' 12/02/2002';

6.

A)Write an SQL query to create following table ‘ Supplier’ with following descriptions.

2

**Table : Supplier**

| Field       | Type         | Constraint                                                   |
|-------------|--------------|--------------------------------------------------------------|
| Supp_id     | Varchar(5)   | Primary Key                                                  |
| Supp_Name   | Varchar(20)  | Not Null                                                     |
| City        | Varchar(20)  |                                                              |
| Order_No    | Integer(10)  | Foreign key with reference to Order_No column in Order table |
| Supp_Amount | Decimal(6,2) | Minimum 10000                                                |

b) In database there are two tables “Student” and “Stream” as below :

**Table: Student**

| Sid | Sname  | age | Strid |
|-----|--------|-----|-------|
| 1   | Roondy | 10  | 1     |
| 2   | Joseph | 12  | 1     |

|   |          |    |   |
|---|----------|----|---|
| 3 | Trinchu  | 14 | 2 |
| 4 | Prithlon | 11 | 3 |
| 5 | Ahol     | 10 | 2 |

**Table : Stream**

| StrId | Name |
|-------|------|
| 1     | Eng  |
| 2     | Com  |
| 3     | Sci  |
| 4     | Hum  |

- (1) What is the name of primary key in both tables? 1
- (2) What is the cardinality and degree of stream table? 1
- c) Consider the following two tables STUDENT and LIBRARY as follows.

**Table : STUDENT**

| St_Id. | St_Name | Stream     | Class | Book_Issue |
|--------|---------|------------|-------|------------|
| 101    | Karan   | Science    | 12B   | C103       |
| 202    | Divakar | Commerce   | 11C   | C104       |
| 305    | Divya   | Commerce   | 12C   | C102       |
| 406    | Arun    | Humanities | 12C   | C101       |
| 501    | Sabina  | Science    | 12A   | C105       |

Table : LIBRARY

| BookNo. | Title          | Author   | Pub    | Issue_Date  |
|---------|----------------|----------|--------|-------------|
| C101    | Data Structure | Lipschtz | McGraw | 10-Dec-2009 |

|      |                  |          |          |             |
|------|------------------|----------|----------|-------------|
| C102 | Computer Studies | French   | Galgotia | 15-Oct-2010 |
| C103 | Advanced Pascal  | Schildt  | McGraw   | 20-Jan-2009 |
| C104 | Dbase dummies    | Palmer   | PustakM  | 8-Sep-2009  |
| C105 | Mastering C++    | Gurewich | BPB      | 23-Nov-2009 |

Write a SQL query for que.(i) and (ii) and output for que:(iii)

- (i) Display student name,stream book issue and date of issue for each student. 2
- (ii) Display student name,class and total student in particular stream. 2
- (iii) SELECT St\_Id,St\_Name,Stream,Title,Issue\_date 2

FROM STUDENT,LIBRARY

WHERE STUDENT.Book\_Issue=LIBRARY.BookNo

ORDER BY St\_Name.

7.

- (a) What is Back end? Explain its functions. 1
- (b) How has our society benefited from e-commerce? Mention any two points? 2
- (c) What controls would you suggest for following types of inputs ? 2
- (i) To display some information
- (ii) Enter password
- (iii) To choose more than one subject from a set of subjects.
- (iv) To enter multiline text