

Std. 12

Time : 3 hrs.

18-9-2015 Half Yearly Examination in INFORMATICS PRACTICE (Set - 1) M.  
Marks : 70

1. a) Write the value of t after the execution of the following code:

[1]

```
int t;  
int s;  
s = 6;  
t = (8*s++)%7;
```

- b) Which tag is used to display a horizontal rule on a web page?

[1]

- c) In a SWITCH statement, what is the purpose of BREAK statements?

[1]

- d) Identify the error in the following HTML code. Rewrite the correct code.

[1]

```
<UL TYPE = "a" START = 4>
```

- e) Write Java code to assign the value 70 to variable y. Then decrease the value of y by 5 and store it in variable z.

[2]

- f) Write the output that will be generated by the code given below:

[2]

```
int i;  
int t;  
for (i = 5; i <=10; i += 5)  
{  
    t = i + 3;  
    System.out. println (" " +t);  
}
```

- g) "With XML you invent your own tags". Explain this statement with the help of example.

[2]

2. a) Sharmila wants to make the database named 'COMPANY' active and display the names of all the tables in it. Write MySQL commands for it.

[1]

- b) Write SQL command to remove column named 'Hobbies' from a table named 'Student'.

[1]

- c) Rewrite the following SQL statement after correcting error(s). Underline the correction made.

[1]

```
INSERT IN EMP(EMPNO, SALES) VALUE(100, 20078.50);
```

- d) A table STUDENT has 5 rows and 3 columns. Table ACTIVITY has 4 rows and 2

column. What will be the cardinality and degree of the Cartesian product of them?

[1]

e) Name the SQL commands used to:

[2]

i) Physically delete a table from the database.

ii) Display the structure of a table.

f) Write one similarity and one difference between UNIQUE and PRIMARY KEY constraints.

[2]

g) What effect does SET AUTOCOMMIT have in transactions?

[2]

3. a) The following code has some error(s). Rewrite the correct code underlining all the corrections made.

[2]

```
int written, interview;
written = Integer.parseInt(jTextField1.getText( ));
interview = Integer.parseInt(jTextField2.getText( ));
    if (written<80) OR (interview<15)
    {
        System.out.println(Not selected);
    }
    Else;
    {
        System.out.print("Selected");
    }
}
```

b) How many times will the following loop execute:

[2]

```
int sum = 0;
for(int z=7;z<=12; z+=2)
{
    sum = sum + z;
    System.out.println(" " +z);
}
```

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- 1)

c) Rewrite the following program code using IF ELSE IF instead of SWITCH statement.

[2]

```
String rem;
int code = Integer.parseInt(jTextField.getText ( ));
```

switch (code)

```
{
    case 1 : rem = "Classes start on 8th April";
                break;
    case 2 : rem = "Classes start on 10th April";
                break;
    case 3 : rem = "Classes start on 12th April";
                break;
    default : rem = "Contact Admin Office";
}
```

d) Write the values of sum and t after execution of the following code:

[2]

```
int sum, t;
```

```
sum = 27;
```

```
t = 3;
```

```
sum = sum + 2 * (++t);
```

e) Seema is a Junior programmer at 'Avon Shoe Factory'. She has created the following GUI in Netbeans.

| AVON SHOE FACTORY                            |                                      |                                     |
|--|--------------------------------------|-------------------------------------|
|  | Enter Quantity                       | Amount                              |
| <input type="checkbox"/> Shoe (Code 101)     | <input type="text"/>                 | <input type="text"/>                |
| <input type="checkbox"/> Sandal (Code 102)   | <input type="text"/>                 | <input type="text"/>                |
| <input type="checkbox"/> Slippers (Code 103) | <input type="text"/>                 | <input type="text"/>                |
| <input type="button" value="Calculate"/>     | <input type="button" value="Clear"/> | <input type="button" value="Stop"/> |
| Total Amount                                 |                                      | <input type="text"/>                |

- 3 items namely Shoes, Sandals and Slippers are manufactured by the factory.
- A buyer can buy more than one item at a time.
- Each pair of shoes costs Rupee 1,500.00, each pair of sandals costs Rupee 1,00.00 and each pair of slipper cost Rupee 500.00.
- The item bought will be selected by the user and the Quantity (number of pairs) bought will be entered by the user.
- Amount to be paid for that item will be displayed in front of the item.

For example if 'Shoe' is selected and Quantity entered is 20, then Amount should be displayed as 30000.

Help Seema write code for the following:

- I) When 'Calculate' button is clicked, the amount should be displayed in front of each item (in the appropriate TextField) and Total amount (sum total of all the amount) should be displayed in the appropriate TextField.

[4]

- II) When Clear button is clicked, all the TextFields and Checkboxes should be cleared.[3]

- III) When Stop button is clicked, the application should close.

[1]

- f) Write coding for jButton1 (Display Salary ) to print Salary in jTextField1 based on the selected options from jComboBox1.

[4]

| <u>Designation</u> | <u>Salary</u> |
|--------------------|---------------|
| Clerk              | 5000          |
| Salesman           | 7000          |
| Analyst            | 9500          |
| Manager            | 11000         |
| Project Manager    | 15000         |

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- 1)

Also calculate the net salary= Salary-PF, PF is 10% of salary. Display net salary in dialog box.

4. a) Write one similarity and one difference between CHAR and VARCHAR data types.  
[2]

- b) Consider the following table named "GARMENT". Write command of SQL for (i) to (iv) and output for (v) to (viii).

Table : GARMENT

| GCODE | GNAME | SIZE | COLOUR | PRICE |
|-------|-------|------|--------|-------|
|-------|-------|------|--------|-------|

|     |               |    |       |         |
|-----|---------------|----|-------|---------|
| 111 | TShirt        | XL | Red   | 1400.00 |
| 112 | Jeans         | L  | Blue  | 1600.00 |
| 113 | Skirt         | M  | Black | 1100.00 |
| 114 | Ladies Jacked | XL | Blue  | 4000.00 |
| 115 | Trousers      | L  | Brown | 1500.00 |
| 116 | Ladies Top    | L  | Pink  | 1200.00 |

I. To display names of those garments that are available in 'XL' size.

[1]

II. To display codes and names of those garments that have their names starting with 'Ladies'.

[1]

III. To display garment names, codes and prices of those garments that have price in the range 1000.00 to 1500.00 (both 1000.00 and 1500.00 included).

[1]

IV. To change the colour of garment with code as 116 to "Orange".

[1]

V. SELECT COUNT (DISTINCT SIZE) FROM GARMENT;

[1]

VI. SELECT AVG (PRICE) FROM GARMENT;

[1]

VII. SELECT GNAME FROM GARMENT WHERE SIZE IN ('M', 'L') AND PRICE>1500;

[1]

VIII. SELECT MAX(Price)-MIN(Price) from Garment;

[1]

5. a) Write MySql command to create the table DEPARTMENT with given constraints.

[2]

Table DEPARTMENT

| COLUMN_NAME  | DATATYPE (SIZE) | CONSTRAINT  |
|--------------|-----------------|-------------|
| DepartmentID | int (4)         | Primary key |
| DepName      | varchar (50)    | Not Null    |
| ManagerID    | char (4)        |             |
| Location     | varchar (30)    | UNIQUE      |

b) In a Database, there are two tables given below:

Table : EMPLOYEE

| EMPLOYEEID | NAME              | SALES   | JOBID |
|------------|-------------------|---------|-------|
| E1         | SAMIT SINHA       | 1100000 | 102   |
| E2         | VIJAY SINGH TOMAR | 1300000 | 107   |
| E3         | AJAY RAJPAL       | 1400000 | 103   |
| E4         | MOHIT RAMNANI     | 1250000 | 102   |
| E5         | SHAILJA SINGH     | 1450000 | 103   |

Table : JOB

| JOBID | JOBTITLE                 | SALARY |
|-------|--------------------------|--------|
| 101   | President                | 200000 |
| 102   | Vice President           | 125000 |
| 103   | Administration Assistant | 80000  |
| 104   | Accounting Manager       | 70000  |
| 105   | Accountant               | 65000  |
| 106   | Sales Manager            | 80000  |

Write SQL Queries for the following:

I. To display employee ids, names of employee, job ids with corresponding job titles.

[2]

- II.To display names of employees, sales and corresponding job titles who have achieved sales more than 130000.  
[2]
- III.To display names and corresponding job title of those employee who have 'SINGH' (anywhere) in their names.  
[2]
- IV.Identify primary key and foreign key in the table EMPLOYEE.  
[2]
- V.Write SQL command to change the JOBID to 104 of the Employee with ID as E4 in the table 'EMPLOYEE'.  
[1]
- VI.Write cardinality and degree of Cartesian product of both the tables.  
[1]
- VII.Write output of name and Jobtitle when performed an equi join on both table.  
[1½]
- VIII.Is there any discrepancy in the column JobID of both the tables. If yes explain.  
[1½]
6. a) Write one advantage and one disadvantage of e-learning to students.  
[2]
- b) What precaution must taken with regard to making payments while shopping online.  
[1]
- c) James works for a Garments company. He has created a form for the employees.  
Help
- him choose most appropriate controls from ListBox, ComboBox, TextField, TextArea, RadioButton, Checkbox, Label and Command Button for the following entries.  
[2]

| S. No. | Function  |
|--------|---|
| 1      | To enter first name of employee                                       |
| 2      | To select gender (M/F)  |
| 3      | To choose category of employee (Permanent / Temporary)                |
| 4      | To allow entering remarks about the employee in the form of paragraph |

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