

FIRST TERMINAL EXAMINATION, 2016
INFORMATICS PRACTICES

Time : 3 hrs.

Class XII

M.M. : 70

Date : 23.09.2016

General Instructions:

- This question paper contains seven questions.
- All questions are compulsory.
- Answer the questions after carefully reading the text.
- Assume the default name of the controls, if not given in the question.

- Q.1**
- (a) Is string containing a single character same as a char? (1)
- (b) Distinguish between '/' and '%' operator. (1)
- (c) Which tag/attributes of HTML are used to: (2)
- (i) Insert an image in the web page.
- (ii) Insert a line in the web page.
- (d) Identify the odd one out of the following Java statements. State reason for your choice: (2)
- (i) for (ii) do while (iii) switch (iv) while
- (e) Write the purpose of parseInt method. (1)
- (f) What is the difference between statement (i) and (ii) (1)
- (i) t = 2;
- (ii) if(t ==2)
- d=3;
- (g) What does 'XML' stand for? How is the purpose of HTML different from XML? (2)
- Q.2**
- (a) Kaveri wants to delete the records when the "FirstName" is "Rama" in the 'EMPL' table. She has entered the following MySQL statement. An error is being displayed. Rewrite the correct statement. (1)
- DELETE 'RAMA' FirstName from EMPL;
- (b) What is the difference between "%" and "_" wild card characters with reference to LIKE clause of MYSQL? (2)
- (c) A database table FUNFOOD has 13 rows and 17 columns. What is the cardinality and degree of this table? (1)
- (d) A numeric column MONEY contains 34567.7890. Write a command to truncate MONEY (2)
- (i) Up to 2 decimal places (i.e. expected result 34567.78)
- (ii) To display the result as 34000.
- (e) What is the purpose of DROP TABLE command in MySQL? How is it different from DELETE command? (2)

(f) What are table constraints? What are column constraints? How are these two different? (2)

Q.3 (a) What do you understand by a well-formed document? (2)

(b) Think of situations where XML should be preferred over HTML. (1)

(c) Correct the following coding and rewrite the corrected one (assuming that connection con is available)? (2)

```
string qry = "Select * from empl ";  
Statement stmt = con.generateStatement();  
ResultSet rs = stmt.executeUpdate(qry);
```

(d) Differentiate between absolute() and relative() methods of ResultSet. (2)

(e) Using Java NetBeans, write coding to increase the salary by 15% of all the employees of department no 20. (2)

(f) Define Object Oriented Programming. (1)

Q.4 (a) What will be the value of agg and agg1 after the execution of the following loops? (2)

Loop 1	Loop 2
<pre>int a=9, agg=9; while(a>10){ agg+=a; a -= 2;} </pre>	<pre>int b=9,agg1=0; do { agg1+=b; b -= 2; } while(b>10);</pre>

(b) Predict the output of the following: (2)

```
int val1=4,val2=11;  
for(int i=1;i<=3;i++) {  
System.out.println( ""+val1++ + "," + --val2);  
System.out.println( ""+val2-- + "," + ++val1);  
}
```

(c) What is wrong with the following while loop? Give the reason and write the corrected code. (2)

```
int val=1;  
while (val<100)  
System.out.println(val);  
val++;
```

(d) What will be displayed in jTextField1 after the execution of the following loop? (2)

```
for(int i=5; i<=30; i+=5)  
jTextArea1.setText(jTextField1.getText() + ""+ Integer.toString(3*i));
```

- (e) Write code to obtain list of selected items from a list namely LIST1. (1)
- (f) Mr. Pawan works as a programmer in “ABC Marketing Company” where he has designed a Salary generator software to generate the salary of salesman in which Name and Salary are entered by the user. A screenshot of the same is shown below:

Help him in writing the code to do the following:

- i. After selecting appropriate Radio Button, when ‘Commission’ button is clicked, commission should be displayed in the respective text field as each Salesman will get a commission based on the units sold according to the following criteria: (2)

Units Sold	Commission (in Rs)
1 to 20	500
20 to 40	1000
>40	2000

- ii. When ‘Gross Salary’ button is clicked, Gross Salary should be calculated and displayed in the respective text field as per the given formula: (1)

$$\text{Gross Salary} = \text{Salary} + \text{Commission}$$

- iii. After required selection of Checkbox(es), when ‘Facility Charges’ button is clicked, Facility charges will be displayed in the respective text field according to the following criteria: (2)

Facility	Charges
Transport	500
Mess	2000

- iv. Money will be deducted from the Gross Salary according to the facilities opted by the employee. When ‘Net Salary’ button is clicked, Net Salary should be calculated and displayed in the respective text field as per the given formulae: (1)

$$\text{Net Salary} = \text{Gross Salary} - \text{Deductions}$$

- Q.5** (a) How is ordinary compilation different from Java compilation? (2)
- (b) Distinguish between a unary, a binary and a ternary operator. Give examples of Java operators for each one of them. (2)

(c) Given the following set of identifiers : (2)

byte b; char ch; short sh; int intval; long long val; float fl;

Now identify the data type of the following expressions:

i) $intval * longval - ch$

ii) $fl + longval / sh$

(d) An application counts the number of vowels in a string. Write the suitable code under the command button countBtn to achieve this goal. (2)

(e) What is the output of the following code fragment if “abc” is passed as an argument to the method namely func()? (2)

```
public static void func(String s1) {
```

```
String s = s1 + "xyz";
```

```
System.out.println("s1 = " + s1);
```

```
System.out.println("s = " + s); }
```

Q.6 (a) What is the purpose of ALTER TABLE command in MySQL? How is it different from UPDATE command? (2)

(b) Write the resulting output of the following : (6)

(i) `Select SUBSTR('NetBeans IDE Programmer', 10,3);`

(ii) `select INSTR(TRIM(' ABS Public School '),5);`

(iii) `select 200 + SQRT(9);`

(iv) `select MOD (ROUND (125.60,1) , 5);`

(v) `select LEFT('RAMESH SHARMA' , 5);`

(vi) `select ROUND(1045.439 , 2) + MOD (12.12 , 3)`

(c) While Creating a table 'Customer' Simrita forget the set of primary key for the table. Give the statement which she should write now to set the column 'CustID' as the primary key of the table? (1)

(d) Garima wants to remove all the rows from 'HOSTEL' table to release the storage space. But she does not want to remove the table structure. Which statement should she use? (1)

Q.7 (a) Define a method Convert to convert seconds into equivalent hours, minutes and second. (Example if user enters 3695 seconds then it should display: (2)

1 hour(s) : 1 minute(s): 35 second(s)

(b) Define "Abstract Class". (1)

(c) How are protected members different from public and private members of a class? (2)

