

SET – 4

Series : SSO/1

Code No. 90/1

Roll No.

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Candidates must write the Code on the title page of the answer-book.

- Please check that this question paper contains 7 printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains 7 questions.
- **Please write down the Serial Number of the question before attempting it.**
- 15 minute time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

## INFORMATICS PRACTICES

Time allowed : 3 hours]

[Maximum marks : 70

### Instructions :

- All questions are compulsory.*
- Answer the questions after carefully reading the text.*

- A company has 3 departments namely Administrative, Sales, Production. Out of telephone cable, Optical Fiber, Ethernet Cable, which communication medium is best for high speed communication between departments ? **1**
  - Name one open source Indian operating system. **1**
  - What is the purpose of a Server in a network ? **1**
  - What do the following top level domains signify ? **1**
    - .com
    - .org
  - List 2 measures to secure a network. **2**
  - Distinguish between MAC address and IP address with the help of example of each. **2**
  - Distinguish between Phonetic text entry and keymap based entry of typing Indian language text. **2**

2. (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 = 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
3. (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 corrections 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 columns. 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

4. (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.println("Selected");
    }
```

- (b) How many times will the following loop execute : 2

```
int z = 7, sum = 0;
do
    {
        sum = sum + z;
        z = z+2;
        system.out.println(" "+z);
    }
while (z <=12);
```

- (c) Rewrite the following program code using IF ELSE IF instead of SWITCH statement. 2

```
String rem;
int code = Integer.parseInt(jTextField1.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";
}
```

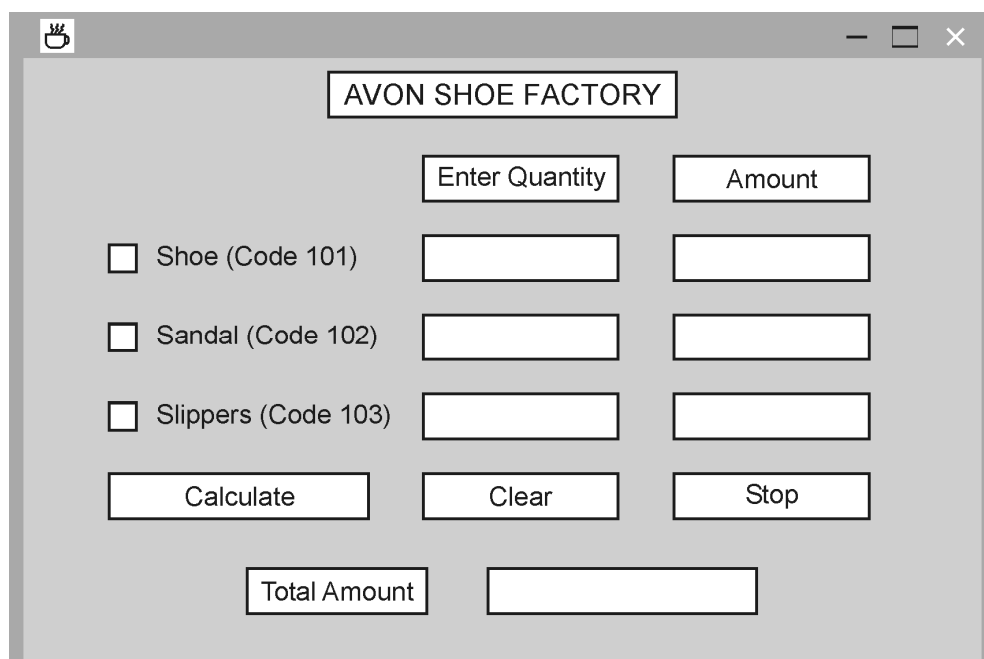
- (d) Write the values of sum and t after execution of the following code : 2

```
int sum,t;
sum = 27;
t = 3;
sum = sum + 2 * (++t);
```

- (e) What will be the contents of jTextField1 and jTextField2 after executing the following code : 2

```
String s = "Best";  
String r = "Luck";  
String z;  
Z = r.concat(s);  
jTextField1.setText(z);  
jTextField2.setText(r.toUpperCase());
```

- (f) Seema is a junior programmer at 'Avon Shoe Factory'. She has created the following GUI in Netbeans.



- 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 ₹ 1,500.00, each pair of sandals costs ₹ 1,000.00 and each pair of slippers cost ₹ 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 : **3**

- (a) 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 amounts) should be displayed in the appropriate textfield. **1**
- (b) When Clear button is clicked, all the Textfields and Checkboxes should be cleared.
- (c) When Stop button is clicked, the application should close. **1**

5. (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 (vii).

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 Jacket	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**
- (c) What is the degree and cardinality of 'Garment' table ? **1**

6. (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)	

- (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	101
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 employees, job ids with corresponding job titles. **2**
- (ii) To display names of employees, sales and corresponding job titles who have achieved sales more than 1300000. **2**
- (iii) To display names and corresponding job titles of those employee who have 'SINGH' (anywhere) in their names. **2**
- (iv) Identify foreign key in the table EMPLOYEE. **1**
- (v) Write SQL command to change the JOBID to 104 of the Employee with ID as E4 in the table 'EMPLOYEE'. **1**

7. (a) Write one advantage and one disadvantage of e-learning to students. **2**
- (b) What precaution must be 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**

<b>S. No.</b>	<b>Function</b>
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.

