

Series: SOS

Code No. 065/1

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.

**Second Pre-Board Examination, 2018-2019
Informatics Practices**

Grade: 12

Time allowed: 3 hours

Date: 29.01. 2019

Maximum Marks: 70

General Instructions.

- 1. All questions are compulsory.**
- 2. Read questions carefully before answering them.**
- 3. Programming Languages: Java & MySQL**
- 4. Write neatly. Rough work may be done neatly in a working column or on the last page of your main sheet**
- 5. Write question numbers correctly.**

SECTION – A

Q1.

(a) Out of the following devices, which device will you prefer to connect all the computers with in an office? [1]

- (i) Telephone
- (ii) Hub/Switch
- (iii) Modem

(b) Expand the following terms? [1]

- (i) FLOSS
- (ii) SMTP

(c) Name the organization which is dedicated to cause of promoting Open Source Software? [1]

(d) For what purpose a Repeater is used? [1]

- (e) What is the difference between LAN and WAN? [2]
- (f) Define the following with reference to Threats to network security. [2]
 - (i) Worm (ii) Trojan Horse
- (g) Give two disadvantages/advantages of Star Topology. [2]

Q2.

- (a) What is wrong with following code: [1]

```
int n=2;
switch (n);
{
    case 1:
        a1 = 10;
        a2 = 20;
        break;
    case 2:
        a3 = 30
        break;
        a4 = 40;
}
```

- (b) What is the purpose of break statement in a loop? [1]
- (c) Which is the largest heading tag? [1]
- (d) What is the role of ALIGN attribute of <TABLE> tag? [1]
- (e) How many times the following loop be executed? [2]

```
int a=5,
b= 25;
while (a<=b)
{
    a =a+10;
    b= b-10;
}
```

- (f) Write a function in Java which accepts length and breadth of a rectangle and returns its area. [2]
- (g) Write two differences between HTML & XML tags? [2]

Q3.

- (a) What are the two symbols used with LIKE clause? [1]
- (b) Rakesh created a table in MySql. Later on he found that one column is no longer required in the table. Which command he should use to delete the column from the table? [1]
- (c) What is candidate key? [1]
- (d) Which function in MySQL removes leading as well as trailing space from a character string? [1]
- (e) What are Group functions? Name any two Group functions used in Mysql. [2]
- (f) The Ename and Hire_Date column of a table'Emp' is given below:

Ename	Hire_date
Anmol	2008-09-12
Sohaib	2009-12-04
Bipasha	2010-01-07
Vijay	2008-05-23
Kalpana	2007-10-19

Based on this information, find the output of the following queries: [2]

(i) Select Ename from Emp where Ename like ' _a%';

(ii) Select Ename from Emp where Ename like '%a' and Year(Hire_date) >2007;

(g) A table 'Book' in a database has 30 records and 7 columns. What is the degree and Cardinality of the table and what will be the Cardinality and degree if 3 rows are added into the table? [2]

SECTION-B

Q4.

(a) What are methods? [1]

(b) What will be the contents of jTextField1 after executing the following code: [1]

```
int n= 20;
n = n-6;
if (n<10)
    jTextField1.setText(Integer.toString(n));
else
    jTextField1.setText(Integer.toString(n-2));
```

(c) What will be contents of JTextArea1 after executing the following statement: [1]

```
jTextArea1.setText("classXII \n Informatics\t practices");
```

(d) Rewrite the following program code in Java using switch statement. [2]

```
if (a==1)
    jTextField1.setText("one");
else if (a==2)
    jTextField1.setText("two");
else if (a==3)
    jTextField1.setText("three");
else if (a==4)
    jTextField1.setText("four");
else if (a==5)
    jTextField1.setText("five");
```

(e) The following code has some errors .Rewrite the correct code underlining all the corrections made: [2]

```
int a,b=200
While (b>70)
{ a = b-50
  b= A;
}
```

(f) What will be the contents of jTextField1 and jTextField2 after executing the following code: [2]

```
jTextField1.setText(Math.pow(4,3)+5+" ");
jTextField2.setText(Math. round(2.962)+" ");
```

(g) Anita a software programmer has developed an application in Netbeans to calculate the salary of the employees of King Fahad International School, Saudi Arabia. [6]

Calculation of DA, HRA & PF is based on the type of staff (Teaching and Non-Teaching) according to the following criteria:

Department	D.A.	H.R.A.	PF(Rs.)
Teaching	40% of Basic	10% of Basic	500/-
Non-teaching	30% of Basic	8% of Basic	400/-

Gross Salary is to be calculated as Basic + DA + HRA+PF

Net Salary is calculated as Gross Salary - PF

- (i) Write the code to make the text fields for DA,HRA,Gross Salary,PF and Net Salary uneditable .
 - (ii) When calculate button is clicked, the DA, HRA,Gross Salary,PF and Net Salary should be calculated as per the above given criteria and should be displayed in the respective text fields.
 - (iii) Close the application when Exit button is clicked.
- (NOTE: You can use any suitable names for various controls on the form)

Q5.

- (a)** Differentiate between Create Table and Alter Table commands with suitable example? [2]
- (b)** Write the output of the following SQL queries: [2]
 - (i) SELECT Round(56.372,1);
 - (ii) SELECT Truncate (31.54,1);
 - (iii) SELECT MID('Rajiv Gandhi',3);
 - (iv) SELECT power(5,3);
- (c)** Consider the table item given below. Write the commands in SQL for (i) to (iv) and output for (v) to (viii). [6]

Table : ITEM

S.No.	Item_Name	Company	Cost	Pur_Qty	Dt_of_Pur
1	Monitor	Samsung	6300	20	2010-05-30
2	CPU	Intel	8000	30	2010-07-23
3	Mouse	Samsung	250	25	2010-08-04
4	UPS	QHMPPL	2100	10	2010-06-19
5	Printer	HP	8400	4	2010-11-27
6	Scanner	HP	4500	6	2010-08-14

- (i) To display Name of the item and cost of those items which were purchased after '2010-08-05'.
- (ii) To display information of those items whose purchase quantity is more than 10 arranged by Date of Purchase.
- (iii) To display the average cost price of the items of HP Company.
- (iv) To show all the information of those items whose name starts with the letter 'M'.
- (v) SELECT count(*) from item where cost >6000 and Pur_Qty <25;

- (vi) SELECT Max(Pur_Qty) from item where cost <5000;
- (vii) SELECT Avg(cost) from item where Pur_qty >25;
- (viii) SELECT cost+200 as 'selling_price' from Item where Item_Name ='Scanner';

SECTION – C

Q6.

- (a) Write a SQL command to create the table 'Hospital 'with following structure: [2]

Table: Hospital

Field Name	Field Type	Constraint
No	Integer	Primary Key
Name	varchar(25)	Not Null
Age	Integer	
Dept	varchar(15)	unique
DataofAdm	Date	

- (b) In a database , there are two tables 'Emp' and 'Dept' as shown below: [2]

DEPT

D_CODE	DEPARTMENT
10	Advertising
20	Marketing
30	Accounts

EMP

EMP_NO	ENAME	SALARY	D_CODE
1	Sunita Ranjan	12000	10
2	Ravi Mehta	15000	20
3	U.D.Rikhari	18000	30
4	Asha Kalra	8000	40
5	Anand Mathur	10000	10

- (i) Identify the Foreign Key column in the table Emp.
- (ii) Check every value in D_code column of both the tables. Do you find any discrepancy?

(c) Consider the tables HEAD and TEACHER given below:

[6]

HEAD

DEPT	DEPT_HEAD
ENGLISH	Renu Bhan
HINDI	Asha Arora
MATHS	Madhukar Sharma

TEACHER

TNO	TNAME	AGE	DEPT
1	Sarita Saharan	35	Hindi
2	Nidhi Chugh	27	English
3	Sarita Sethi	32	English
4	Maju Gungani	43	Maths
5	Reema Sethi	36	Hindi

With reference to these tables, write commands in SQL for (i) and (ii) and output for (iii) given below:

(i) Display the Teacher name, Age and Head of Department of those teachers whose Head of Departments is 'Asha Arora'.

(ii) Display the Teacher No., Name of the teacher, Age and Head of Department whose age is between 30 and 40.

(iii) Select Dept_Head , Count(*) from teacher ,Head where teacher .Dept = Head.Dept group by Dept_Head;

Q7.

(a) What is front end? [1]

(b) Write two negative social impacts of E-Governance? [2]

(c) Akash works for Waves Hotel. He wishes to create control on a form for the following functions, choose appropriate controls from Text Box ,Label, Radio Button,, checkbox , List Box Command Button and write in the third column. [2]

S.No.	Controls Used to	Control
1	Customer's Name	
2	Select Room Type	
3	Gender	
4	Book the Room	