

KENDRIYA VIDYALAYA SANGATHAN

ERNAKULAM REGION

II- Pre Board Examination- 2018-19 SET A

Subject : Informatics Practices (065)

Time : 3 hours

Class : XII

Maximum Marks : 70

- Note. (i) All questions are compulsory.
(ii) Programming Language: Java ,Mysql

- Q1 a) After realizing the issues with proprietary software, Ms. Sunita has decided to use only Open Source Software. Suggest any one suitable open source software to her, for each of the following categories: 1
i. Operating System
ii. Browser
b) Identify the type of network (out of LAN/PAN/MAN/WAN) formed in the given diagram: 1



- c) Mr. Ravi, an IT Help Desk executive need to remotely login a customer's PC to provide him technical support. Suggest remote access software to him. 1
d) Identify the device which has following type address: 1
10 :B5 : 08 : 87 : 5F : CC
e) Which type of text entry is done according to word pronunciation in English Script into Indian languages script? 1
f) What is snooping? How is it differ from eavesdropping? Explain with Example. 2
g) Susan has downloaded a software from the internet which can be freely distributed and used by anyone but the source code is not available. Is it Freeware or free software? Justify your answer. 1
h) Which character coding provides platform independence? 1
i) Technology which is protected by copyright and not available to everyone is called? 1
- Q2 a) Which property of the radio button should be set so that only one radio button may be selected at a particular time? 1
b) What method would you use, in order to simulate a button's (namely OkBtn) click event, without any mouse activity from user's side? 1
c) Will the output from the following two code be any different? 2
First Code:

```
int x=2,y=40;
while(y<=x) {
jTextField1.setText(""+x);
x=x+8;
}
```

Second Code :

```
int x=2,y=40;
do {
jTextField1.setText(""+x);
x=x+8;
} while(y<=x);
```

Give reasons for your answer

d) Face attribute is used with which HTML tag and what is its use? 1

e) Nikhil, a website designer with “Innovative Designers Pvt. Ltd.” has written the following code. Observe the code given below and answer the following questions: 4

```
<vidyalaya>
<student roll=1>
<name>Anu</name>
<class sec="xii">Computer</class>
</student>
<student roll=2>
<name>Manu</name>
<class sec="xi">Informatics</class>
</student>
</vidyalaya>
```

i. Are these tags part of HTML code or XML code?

ii. Identify the root element.

iii. Mention any two child elements.

iv. Mention any two attributes

f) Name the package that provides SQL Driver for java. 1

Q3 a) Classify the following commands according to their type :(DDL/DML) 1

i. INSERT INTO

ii. ALTER TABLE

b) Mr. Rohit, a database administrator in “Global Educational and Training Institute” has created following table named “Training” for the upcoming training schedule: 4

Training

Training_Id	Name	Email_Id	Topic	City	Fee
ND01	Mr. Rajan	raj@gmail.com	Cyber Security	New Delhi	10000
GU01	Ms. Urvashi	urv@yahoo.com	ICT in Education	Gurugram	15000
FD01	Ms. Neena	neena@rediff.com	Cyber Security	Faridabad	12000
ND02	Mr. Vinay	NULL	ICT in Education	New Delhi	13000
GU02	Mr. Naveen	navgmail.com	Cyber Security	Gurugram	NULL

Help him in writing SQL query for the following purpose:

- i. To count how many male candidates will be attending the training.
- ii. To display list of non-free trainings.
- iii. To display all the cities where 'ICT in Education' training is scheduled along with its fee.
- iv. To add a column 'Remarks' with suitable data type.

- c) Observe the table named "Training" given above carefully and predict the output of the following queries: 4
- i. select city from training where topic = 'Cyber Security';
 - ii. select count(Training_Id) from training where email_id like '%mail% ';
 - iii. select AVG (Fee) from training where Topic = 'Cyber Security';
 - iv. select name from training where INSTR (Email_Id, '@')=0;
- d) What is the degree and cardinality of the above given table named 'Training' after adding three rows and one column. 1

- Q4 a) Study the following code and answer the questions that follow: 2

```
public class Example extends javax.swing.JFrame
{
    /** Creates new form named Example */
    public Example()
    {
        initComponents();
    }
}
```

- i. Which feature of object oriented programming is depicted above?
 - ii. Name the base class and the derived class.
 - iii. Name the keyword used for passing on characteristics of the base class to derived class.
- b) What will be the contents of JTextField1 and JTextField2 after executing the following code 2

```
jTextField1.setText("Financial".substring(3,5)+" apple");
jTextField2.setText("Marketing".toUpperCase());
```

- c) What message will be displayed after the execution of the following code? 2
- ```
int Age=60, Relaxation=4;
int ModiAge=Age-Relaxation;
if(ModiAge<56)
 JOptionPane.showMessageDialog (Null, "NOT eligible") ;
else
 JOptionPane.showMessageDialog(Null , "Eligible");
```
- d) Rewrite the following program code using if statement. 2

```
String Remarks;
int Code=Integer.parseInt(jTextField1.getText());
switch(Code)
{
 case 100 :
 Remarks="100% Tax Exemption";
 break;
 case 50 :
 Remarks="50% Tax Exemption";
 break;
```

```

case 30 :
 Remarks="30% Tax Exemption";
 break;
default:
 Remarks="! Invalid Entry";
}

```

e) Anju, a beginner in java programming has written following code with some mistakes: 2

```

int k=0;
string s="Save Earth";
int l=s.length;
for(int i=0;k<l;i++)
{
jTextArea1.add(s+\n);
k++;
}

```

Help her in identifying and correcting the errors.

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: 1

- i. After searching 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:

| Unit 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 formulae: 1

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

- iii. After required selection of Checkbox(es), when ‘Facility Charges’ button is 2

clicked, Facility charges will be displayed in the respective text field according to the following criteria:

| 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:  

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

- Q5 a) What is the use of USE and DESCRIBE Command in My Sql? Explain with Example. 2  
 b) Ms.Pooja, a beginner in SQL is not able to understand the meaning of "Saving a Transaction". Help her in understanding the same. Also mention suitable command for it. 2  
 c) Observe the given table carefully and answer the following questions: 4

Student

| Admn | Name     | Stream     | Optional | Average |
|------|----------|------------|----------|---------|
| 1001 | Shrishti | Science    | CS       | 90      |
| 1002 | Ashi     | Humanities | Maths    | 80      |
| 1003 | Aditya   | Commerce   | IP       | 60      |
| 1004 | Ritu Raj | Science    | IP       | 65      |
| 1005 | Sonali   | Commerce   | Maths    | 60      |
| 1006 | Saumya   | Science    | IP       | 65      |
| 1007 | Ashutosh | Science    | IP       | 95      |
| 1008 | Prashant | Commerce   | P.ED     | 80      |
| 1009 | Aman     | Commerce   | IP       | 70      |
| 1010 | Rishabh  | Humanities | P.ED     | 85      |

- i) To display the details of all those students who have IP as their optional subject.  
 ii) To display name, stream and optional of all those students whose name starts with 'A'.  
 iii) To give an increase of 3 in the average of all those students of humanities section who have Maths as their optional subject.  
 iv) To display a name list of all those students who have average more than 75.
- d) On the basis of the Table Student, write the output(s) produced by executing the following queries: 2
- i. Select max(average), min(average) from student group by stream having stream = "Science";  
 ii. Select name from student where optional IN ("CS","IP");

Q6 a) Write SQL query to create a table "Registration" with the following structure:

2

Table: Registration

| Field name | Datatype | Size | Constraint  |
|------------|----------|------|-------------|
| Reg_Id     | Integer  | 2    | Primary Key |
| Name       | Varchar  | 20   |             |
| Course     | Varchar  | 10   |             |
| Join_Dt    | Date     |      |             |

b) Consider the tables given below.

**Salesperson**

| SalespersonId | Name   | Age | Salary |
|---------------|--------|-----|--------|
| 1             | Ajay   | 61  | 140000 |
| 2             | Sunil  | 34  | 44000  |
| 5             | Chris  | 34  | 40000  |
| 7             | Amaaya | 41  | 52000  |

**Orders**

| OrderId | SalespersonId | Amount |
|---------|---------------|--------|
| 10      | 2             | 54000  |
| 20      | 7             | 18000  |
| 30      | 1             | 46000  |
| 40      | 5             | 24000  |

- i. The SalespersonId column in the "Salesperson" table is the \_\_\_\_\_ KEY. The SalespersonId column in the "Orders" table is a \_\_\_\_\_ KEY. 2
- ii. Can the 'SalespersonId' be set as the primary key in table 'Orders'. Give reason.
- c) With reference to the above given tables (in Q6 b), Write commands in SQL for (i) and (ii) and output for (iii) below: 6
  - i. To display SalespersonID, names, orderids and order amount of all salespersons.
  - ii. To display names ,salespersons ids and order ids of those sales persons whose names start with 'A' and sales amount is between 15000 and 20000.
  - iii. SELECT SalespersonId, name, age, amount FROM Salesperson, orders WHERE Salesperson.salespersonId= Orders.salespersonId AND AGE BETWEEN 30 AND 45;

- Q7 a) 'Bachpan Toys' is a small company manufacturing toys. They have decided that it would be beneficial to the company to create a website which would allow customers to order toys on-line. State how 'Bachpan Toys' would benefit from the website. 2
- b) Mention any one major environmental benefits of ICT to Ms. Maya so that she can utilize it in her future "Save Planet" campaign. 1
- c) Mr. Das is working as a Manager in the 'Big Bytes Enterprises' . He wants to create controls on a form for the following functions. Choose appropriate controls from Text field, Label, Radio Button, Check box, List, Combo Box, Button and write in the third column. 2

| SNo | Function                                                             | Controls |
|-----|----------------------------------------------------------------------|----------|
| 1   | To display the title 'Big Bytes Enterprises'                         |          |
| 2   | To allow to select one or more Department out of the given 5 options |          |
| 3   | To enter Address in the form of a paragraph                          |          |
| 4   | Submit the Form                                                      |          |