

KENDRIYA VIDYALAYA SANGATHAN

SESSION ENDING EXAMINATION

INFORMATICS PRACTICES (065)

CLASS – XI

Time Allowed: 3 Hours

Maximum Marks: 70

Instructions:

- (i) **All** questions are compulsory.
- (ii) Programming Language : Java, SQL

1. (a) Write any two weaknesses of computer? 1
- (b) Write two common examples of Multi-user operating system. 1
- (c) What are cookies? 1
- (d) What type of damages can be caused by viruses to the computer system? 1
- (e) Explain the term Integrated Development Environment with its tools. 2
- (f) Explain the basic architecture of computer along with the functioning of each of its subunit. 2
- (g) What is Spamming? Why has it become a big Internet issue? 2

2. (a) Amit is developing GUI application in Java in which he wants to get vehicles which are available with the person (like car, bike, scooter, bicycle etc. any one or all or few). He is confused that which swing control he will use for this purpose. Suggest him best suitable swing control for this purpose. 1
- (b) Write the name of the method which is used to receive the data from JTextField in our program which is entered by user at run time. 1
- (c) Rohit wants to know in his program that which radio button is selected by the user at run time. Tell him the name of the method which he will use to find out. 1
- (d) Write the name of the property which is used to make any control disable. 1

- (e) What is the difference between the / and % operator in Java. Describe it with suitable example. 2
- (f) What are arithmetic operators in Java? Describe any one with suitable example. 2
- (g) What is the difference between if – else-if statement and nested - if statement? Describe it with suitable example. 2
3. (a) What is meant by Tuple in RDBMS? 1
- (b) Explain the use of DISTINCT keyword with example. 2
- (c) Explain the use of MODIFY keyword in ALTER table command with example. 2
- (d) Write mysql command to create a database named School. 1
- (e) Write mysql command to remove a table Employee from the database. 1
- (f) Explain Primary key with example. 1
- (g) What is the default value inserted in a field if the value is not provided by the INSERT command? Explain using example. 2
4. (a) Vinitha is using switch statement in her program. She wants that if the value is not matching with any case then a set of commands should be executed. Tell her how she will achieve it. 1
- (b) Write the name of the method which is used to convert string value in to float value in Java. 1
- (c) Write the name of the method which is used to display message dialog by using the JOptionPane control. 1
- (d) What will be the output of the following statement: 2
- ```
int a=5,b,c=0;
do {
 b=1;
 while(b<=5){
 b++;
 c++;
 }
 a--;
```

```

}while(a>0);
System.out.println(c+""");

```

- (f) Following code has some error(s). Rewrite the correct code underlining all the corrections made: 2

```

int a = Integer.parseInt(jTextField1.setText());
int b = 20 ;
int c;
c = a X b;
jTextField1.getText(toStr(c));

```

- (f) Following code has some error(s). Rewrite the correct code underlining all the corrections 2

```

int i;
for(i=0,i<=10,i++){
 if(i % 2 =0) {
 System.println(i+" ")
 }
}

```

- (g) The following GUI form is created in Netbeans for a Shop.

- (i) Write the code for Discount Amount button which calculate and display gross amount and discount amount by using following table: 3

| Type of sales | Discount % |
|---------------|------------|
| Cash          | 10         |
| Cheque        | 5          |

|        |   |
|--------|---|
| Credit | 0 |
|--------|---|

- (ii) Write the code for Net Amount button which calculate and display Net Amount (Net amount = gross amount – discount amount) 2
- (iii) Write the code for Exit button to close the application. 1
5. (a) Write any two difference between DELETE & DROP command. 2
- (b) Write the output of the following SQL queries: 2
- (i) SELECT CONCAT ( ' Mit ',RIGHT( 'Suresh',3 ) ) ;
- (ii) SELECT DAYOFMONTH( '2010-12-12' ) ;
- (iii) SELECT ROUND( 4.65 ,0 ) ;
- (iv) SELECT SUBSTRING( 'KVSANGATHAN' , 3 ) ;
- (c) Write the SQL commands for the (i) to (iv) and write the output of the (v) and (vi) on the basis of table STUDENT given below: 6

**STUDENT**

| No. | Name    | Stream   | Marks | Grade | Class | DOB        |
|-----|---------|----------|-------|-------|-------|------------|
| 1   | Kamlesh | Computer | 78.0  | B     | 12B   | 1984-04-12 |
| 2   | Praveen | Commerce | 88.2  | A     | 11C   | 1987-05-02 |
| 3   | Manoj   | Commerce | 67.6  | C     | 12C   | 1990-02-09 |
| 4   | Laxmi   | Computer | 77.1  | B     | 12C   | 1990-12-07 |
| 5   | Suja    | Biology  | 78.6  | B     | 11A   | 1987-12-02 |
| 6   | Basima  | Commerce | 89.4  | A     | 12B   | 1984-05-12 |
| 7   | Soju    | Biology  | 88.4  | A     | 11A   | 1985-09-05 |
| 8   | Deepa   | Computer | 75.5  | A     | 12A   | 1990-02-15 |
| 9   | Shushil | Biology  | 92.4  | A     | 12A   | 1984-04-13 |
| 10  | Baba    | Commerce | 92.5  | A     | 12C   | 1984-03-13 |

- (i) To display the details of Computer stream students in class 11(A,B & C).
- (ii) To display name marks & grades in descending order of marks.
- (iii) To display names in upper case.
- (iv) To display the position of 'a' in every name.
- (v) SELECT NAME,LEFT(CLASS,2) FROM STUDENT  
WHERE STREAM = 'Biology';
- (vi) SELECT NAME,STREAM,MARKS FROM STUDENT  
WHERE STREAM = 'Computer' AND GRADE IN ('A','B');
6. (a) Create table Employee as per following Table Instance Chart. 2

| Column Name | Eid     | Ename   | Eaddr   | City    | Doj  |
|-------------|---------|---------|---------|---------|------|
| Data Type   | Integer | Varchar | Varchar | Varchar | Date |

|                   |             |          |    |    |  |
|-------------------|-------------|----------|----|----|--|
| <b>Length</b>     |             | 30       | 30 | 20 |  |
| <b>Constraint</b> | Primary key | Not Null |    |    |  |

(b) Write Sql commands based on the table given below :

2

**Table: Company**

| Cid | Cname  | HO        | Contact  |
|-----|--------|-----------|----------|
| 1   | Titan  | Bangalore | Ravikant |
| 2   | Maxima | Mumbai    | Sanjay   |
| 3   | Ajanta | Chennai   | NULL     |

- (i) To delete the records of companies having head office in Mumbai.
- (ii) To change the head office of Titan company to Indore.

(c) Write the sql commands for (i) to (vi) based on the given table BOOK.

6

**Table : Book**

| Book_Id | Book_Name       | Author_Name     | Publisher | Price | Type    | Quantity |
|---------|-----------------|-----------------|-----------|-------|---------|----------|
| C0001   | Fast Cook       | Lata Kapoor     | EPB       | NULL  | Cookery | 5        |
| F0001   | The Tears       | William Hopkins | First Pub | 650   | Fiction | NULL     |
| T0001   | My First C++    | Brain & Brooke  | EPB       | 350   | Text    | 10       |
| T0002   | C++ Brain works | A.W. Rossaine   | TDH       | 350   | Text    | 15       |
| F0002   | Thunderbolts    | Anna Roberts    | First Pub | 750   | Fiction | 50       |

- (i) To display Book id, Book name, Author name and price of books where names ending with s.
- (ii) To display the names and Total Price of books in ascending order of their quantity where Total Price is calculated as price \* quantity.
- (iii) To increase the quantity of Fast Cook book by 10.
- (iv) To display Cookery and Fiction type books.
- (v) To display all books which are not from EPB publisher.
- (vi) To add a new column discount (int) in the table.

7. (a) Name any two e-Governance websites of India.

1

(b) What do you mean by e-Learning? What are the limitations of E-learning?

2

(c) What is difference between traditional business system and e-business?

2

## ANSWER KEY

1. (a) Write any two weaknesses of computer? 1  
Ans: IQ Zero, Lack of Decision Making Power.  
( ½ marks for each correct answer)
- (b) Write two common examples of Multi-user operating system. 1  
Ans: Unix, Linux, windows server  
( ½ marks for each correct answer OR any other correct answer)
- (c) What are cookies? 1  
Ans: A cookie, also known as a web cookie, browser cookie, and HTTP cookie, is a piece of text stored on a user's computer by their web browser.
- (d) What type of damages can be caused by viruses to the computer system? 1  
Ans: (i) Damage or deletes the file  
(ii) Slow down computer  
(iii) Invade your email program  
(iv) Damage the hardware.  
( ½ marks for each correct answer OR any other correct answer)
- (e) Explain the term Integrated Development Environment with its tools. 2  
Ans: IDE(Integrated Development Environment) is an application program consisting of different development tools needed for developing an application.  
An IDE consists the following tools  
i) Editor  
ii) Compiler  
iii) Debugger  
iv) Code generator etc.  
(1 mark for definition and 1 mark for tools any two)
- (f) Explain the basic architecture of computer along with the functioning of each of its subunit. 2  
(2 marks for correct answer)
- (g) What is Spamming? Why has it become a big Internet issue? 2  
Ans: Spam is flooding the Internet with many copies of the same message, in an attempt to force the message on people who would not otherwise choose to receive it.  
  
Most spam is commercial advertising, often for dubious products, get-rich-quick schemes, or quasi-legal services. Spam costs the sender very little to send -- most of the costs are paid for by the recipient or the carriers rather than by the sender.  
(2 marks for correct answer)
2. (a) Amit is developing GUI application in Java in which he wants to get vehicles 1  
which are available with the person (like car, bike, scooter, bicycle etc. any one or

all or few). He is confused that which swing control he will use for this purpose. Suggest him best suitable swing control for this purpose.

Ans :

Check Box

1 marks for correct answer

- (b) Write the name of the method which is used to receive the data from JTextField in our program which is entered by user at run time. 1

Ans :

getText()

1 marks for correct answer

- (c) Rohit wants to know in his program that which radio button is selected by the user at run time. Tell him the name of the method which he will use to find out. 1

Ans :

isSelected()

1 marks for correct answer

- (d) Write the name of the property which is used to make any control disable. 1

Ans :

Enabled(false);

1 marks for correct answer

- (e) What is the difference between the / and % operator in Java. Describe it with suitable example. 2

1 marks for difference

1 marks for suitable example.

- (f) What are arithmetic operators in Java? Describe any one with suitable example. 2

1 marks for arithmetic operators.

1 marks for suitable example.

- (g) What is the difference between if – else-if statement and nested - if statement? Describe it with suitable example. 2

1 marks for difference

1 marks for suitable example.

3. (a) What is meant by Tuple in RDBMS? 1  
ANS: Rows/records in the table are called as tuples. It represents the collection of all related field values.
- (b) Explain the use of DISTINCT keyword with example. 2  
Ans: DISTINCT eliminates the redundant data from a column. (1 mark)  
e.g. select DISTINCT City from employee;  
will display the distinct cities from employee table. (1 mark)
- (c) Explain the use of MODIFY keyword in ALTER table command with example. 2  
Ans: MODIFY keyword is used to modify/change the data type of a column. (1 mark)  
e.g. Alter table student modify name varhcar(30) ;  
will modify the data type of name column to varchar(30) (1 mark)
- (d) Write mysql command to create a database named School. 1  
Ans: create database School;
- (e) Write mysql command to remove a table Employee from the database. 1  
Ans: Drop table Employee;
- (f) Explain Primary key with example. 1  
Ans: It is the column or set of columns used to uniquely identify the records in the table. (1 mark)  
e.g. rollno in student table because each student rollno is unique and can be used to uniquely identify the records. (1 mark)
- (g) What is the default value inserted in a field if the value is not provided by the INSERT command? Explain using example. 2  
Default value inserted in the field is NULL if the value is not provided in insert command. (1 mark)  
e.g. insert into student(rollno,name) values(123,'Raju');  
will insert NULL in the class column. (1 mark)
4. (a) Vinitha is using switch statement in her program. She wants that if the value is not matching with any case then a set of commands should be executed. Tell her how she will achieve it. 1  
  
Ans :  
She has to use default statement in her switch statement and write all such instructions in default statement.  
1 marks for correct answer.
- (b) Write the name of the method which is used to convert string value in to float value in Java. 1



Ans :

parseFloat()

1 marks for correct answer.

- (c) Write the name of the method which is used to display message dialog by using the JOptionPane control. 1

Ans :

showMessageDialog()

1 marks for correct answer.

- (d) What will be the output of the following statement: 2

```
int a=5,b,c=0;
do {
 b=1;
 while(b<=5){
 b++;
 c++;
 }
 a--;
}while(a>0);
System.out.println(c+"");
```

Answer :

25

2 marks for correct answer.

- (f) Following code has some error(s). Rewrite the correct code underlining all the corrections made: 2

```
int a = Integer.parseInt(jTextField1.setText());
int b = 20 ;
int c;
c = a X b;
jTextField1.getText(toStr(c));
```

answer :

```
int a = Integer.parseInt(jTextField1.getText());
int b = 20 ;
int c;
c = a * b;
jTextField1.setText(Integer.toString(c));
```

½ marks for each error

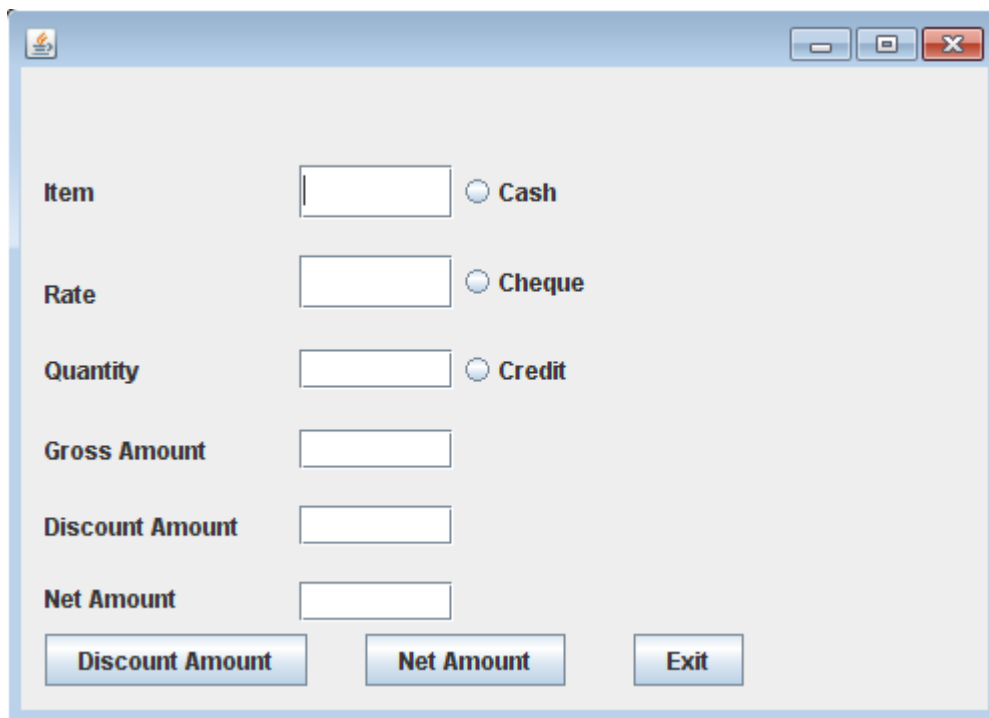
- (f) Following code has some error(s). Rewrite the correct code underlining all the corrections 2

```
int i;
for(i=0,i<=10,i++){
if(i % 2 =0) {
System.println(i+ " ")
}
}
```

Answer :

```
int i;
for(i=0;i<=10;i++){
if(i % 2 == 0) {
System.out.println(i+ " ");
}
} (1/2 mark for each correction)
```

- (g) The following GUI form is created in Netbeans for a Shop.



- (i) Write the code for Discount Amount button which calculate and display gross amount and discount amount by using following table: 3

| Type of sales | Discount % |
|---------------|------------|
| Cash          | 10         |
| Cheque        | 5          |
| Credit        | 0          |

Answer :

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
 float ga=0.0F,da=0.0F,rate,price;
 rate = Float.parseFloat(rateTF.getText());
 price = Float.parseFloat(priceTF.getText());
 ga = rate * price;
 if(cashRB.isSelected()){
 da = ga * 10/ 100;
 }
 else if(chequeRB.isSelected())
 {
 da = ga *5/ 100;
 }
 else if(creditRB.isSelected())
 {
 da = 0;
 }
 grossTF.setText(" "+ga);
 discountTF.setText(" "+da);

}
}
```

3 marks for correct answer

- (ii) Write the code for Net Amount button which calculate and display net amount 2  
 Net amount = gross amount – discount amount

Answer :

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
 float na,ga,da;
 ga = Float.parseFloat(grossTF.getText());
 da = Float.parseFloat(discountTF.getText());
 na = ga-da;
 netTF.setText(" "+na);
}
}
```

2 marks for correct answer

- (iii) Write the code for Exit button to close the application.

1

Answer :

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
 System.exit(0);
}
```

1 marks for correct answer

5. (a) Write any two difference between DELETE & DROP command.

2

Ans: delete is to delete the data records from the table. Drop is to remove complete table from the database.

Delete is DML, can be rollback. Drop is DDL, can't be rollback.

(1 mark for each correct difference)

- (b) Write the output of the following SQL queries:

2

(v) SELECT CONCAT ( ' Mit ',RIGHT( 'Suresh',3 ) ) ;

Ans: Mitesh

(vi) SELECT DAYOFMONTH( '2010-12-12' ) ;

Ans: 12

(vii) SELECT ROUND( 4.65 ,0 ) ;

Ans: 5

(viii) SELECT SUBSTRING( 'KVSANGATHAN' , 3 ) ;

Ans: SANGATHAN

- (c) Write the SQL commands for the (i) to (iv) and write the output of the (v) and (vi) on the basis of table STUDENT given below:

6

STUDENT

| No. | Name    | Stream   | Marks | Grade | Class | DOB        |
|-----|---------|----------|-------|-------|-------|------------|
| 1   | Kamlesh | Computer | 78.0  | B     | 12B   | 1984-04-12 |
| 2   | Praveen | Commerce | 88.2  | A     | 11C   | 1987-05-02 |
| 3   | manoj   | Commerce | 67.6  | C     | 12C   | 1990-02-09 |
| 4   | laxmi   | Computer | 77.1  | B     | 12C   | 1990-12-07 |
| 5   | suja    | Biology  | 78.6  | B     | 11A   | 1987-12-02 |
| 6   | basima  | Commerce | 89.4  | A     | 12B   | 1984-05-12 |
| 7   | soju    | Biology  | 88.4  | A     | 11A   | 1985-09-05 |
| 8   | Deepa   | Computer | 75.5  | A     | 12A   | 1990-02-15 |
| 9   | shushil | Biology  | 92.4  | A     | 12A   | 1984-04-13 |
| 10  | baba    | Commerce | 92.5  | A     | 12C   | 1984-03-13 |

(vii) To display the details of Computer stream students in class 11(A,B & C).

SELECT \* FROM STUDENT WHERE STREAM='Computer' AND CLASS LIKE

'11\_';

(viii) To display name marks & grades in descending order of marks.

```
SELECT NAME, MARKS, GRADE FROM STUDENT ORDER BY MARKS
DESC;
```

(ix) To display names in upper case.

```
SELECT UPPER(NAME) FROM STUDENT;
```

(x) To display the position of 'a' in every name.

```
SELECT INSTR(NAME, 'a') FROM STUDENT;
```

(xi) Select name, left(class,2) from student where stream='Biology';

```
SUJA 11
```

```
SOJU 11
```

```
SHUSHIL 12
```

(xii) Select name, stream, marks from student where stream='Computer' AND  
Grade IN ('A', 'B');

```
KAMLESH COMPUTER 78.0
```

```
LAXMI COMPUTER 77.1
```

```
DEEPA COMPUTER 75.5
```

6. (a) Create table Employee as per following Table Instance Chart.

2

| Column Name | Eid            | Ename    | Eaddr   | City    | Doj  |
|-------------|----------------|----------|---------|---------|------|
| Data Type   | Integer        | Varchar  | Varchar | Varchar | Date |
| Length      |                | 30       | 30      | 20      |      |
| Constraint  | Primary<br>key | Not Null |         |         |      |

```
CREATE TABLE EMPLOYEE (EID INT PRIMARY KEY, ENAME VARCHAR(30)
NOT NULL, EADDR VARCHAR(30), CITY VARCHAR(20), DOJ DATE);
```

(b) Write Sql commands based on the table given below :

2

Table: Company

| Cid | Cname  | HO        | Contact  |
|-----|--------|-----------|----------|
| 1   | Titan  | Bangalore | Ravikant |
| 2   | Maxima | Mumbai    | Sanjay   |
| 3   | Ajanta | Chennai   | NULL     |

(iii) To delete the records of companies having head office in Mumbai.

```
ANS: DELETE FROM COMPANY WHERE HO='Mumbai';
```

(iv) To change the head office of Titan company to Indore.  
 ANS: UPDATE COMPANY SET HO='Indore' WHERE CNAME='Titan';

(c) Write the sql commands for (i) to (vi) based on the given table BOOK.

6

Table : Book

| Book_I<br>d | Book_Name          | Author_Name     | Publisher | Price | Type    | Quantit<br>y |
|-------------|--------------------|-----------------|-----------|-------|---------|--------------|
| C0001       | Fast Cook          | Lata Kapoor     | EPB       | NULL  | Cookery | 5            |
| F0001       | The Tears          | William Hopkins | First Pub | 650   | Fiction | NULL         |
| T0001       | My First C++       | Brain & Brooke  | EPB       | 350   | Text    | 10           |
| T0002       | C++ Brain<br>works | A.W. Rossaine   | TDH       | 350   | Text    | 15           |
| F0002       | Thunderbolts       | Anna Roberts    | First Pub | 750   | Fiction | 50           |

(vii) To display Book id, Book name, Author name and price of books where names ending with s.

```
SELECT BOOK_ID,BOOK_NAME,AUTHOR_NAME,PRICE FROM BOOK
WHERE BOOK_NAME LIKE '%s' ;
```

(viii) To display the names and Total Price of books in ascending order of their quantity where Total Price is calculated as price \* quantity.

```
SELECT BOOK_NAME,PRICE*QUANTITY AS "TOTAL PRICE" FROM BOOK
ORDER BY QUANTITY;
```

(ix) To increase the quantity of Fast Cook book by 10.

```
UPDATE BOOK SET QUANTITY =QUANTITY+10 WHERE BOOK_NAME='Fast
Cook' ;
```

(x) To display Cookery and Fiction type books.

```
SELECT * FROM BOOK WHERE TYPE IN ('Cookery','Fiction');
```

(xi) To display all books which are not from EPB publisher.

```
SELECT * FROM BOOK WHERE PUBLISHER<>'EPB';
```

(xii) To add a new column discount (int) in the table.

```
ALTER TABLE BOOK ADD DISCOUNT INT;
```

7. (a) Name any two e-Governance websites of India.

1

Ans: <http://indianairforce.nic.in>

<http://indiannavy.nic.in>

( ½ marks for each correct answer OR any other correct answer)

(b) What do you mean by e-Learning? What are the limitations of E-learning?

2

Ans: E-learning is a flexible term used to describe a means of teaching through technology such as a network, browser, CDROM or DVD multimedia platforms. The e-learning setup, if implemented in quality way, offers many benefits to both

the teachers, school and learners.

The limitations of E-learning are as follows:

- \* Up-front investment
- \* Inappropriate content
- \* Portability of training

(1 mark for definition and 1 mark for benefit any two)

- (c) What is difference between traditional business system and e-business? 2  
(2 marks for 2 correct difference)