

SET 3

KENDRIYA VDYALAYA SANGATHAN ERNAKULAM REGION

MODEL PAPER

SUB: INFORMATICS PRACTICES

CLASS: XII

Time: 3 Hrs

Max.Mark: 70

1

- a) Mr. Ram is interested in transferring songs from his mobile to Mr. Shyam's mobile. Suggest two suitable wireless options he may use for doing the same. 1
- b) Neha wants to upload/download files from/to a remote internet server. Write the name of the relevant communication protocol, which will let her do the same. 1
- c) It is technology on computer networks whose purpose is to prevent unwanted networking connection according to some filtering/blocking rules. What is it? 1
- d) Which of the following are open standards? 1
(1) .OGG (2) .DOC (3) .TTF (4) .JPEG
- e) What is DOS(Denial of Service) ? Explain briefly. 2
- f) Differentiate between Dedicated and Non-dedicated server. 2
- g) List out any four advantages of Open Standards. 2

2.

- (a) Which property of JLabel box is used to specify the image during design time? (1)
- (b) Which statement is used to terminate the loop before its maturity? (1)
- (c) Which HTML tag and corresponding attributes are used to establish default font size for entire page? (1)
- (d) What is the difference between and tag? (1)
- (e) What will be the value of a and b after execution of the following code: (2)

```
int a=1,b=2;
if( ++ b <5)
{
    a* = b;
```

}

- (f) Write a function in java that takes cost price and selling price of a good as input and returns 1 if the shop keeper made profit and 0 if he had made loss. (2)
- (g) Write some features of XML. (2)

3.

- a) If a database “ Employee” exists, which MySql command help you to start working in that database. 1
- b) Mr. Ganesh wants to give moderation of 5 marks to all students those have below 35 mark. Name the command for this purpose. 1
- c) Correct the following SQL command. 1
SELECT stdname FROM STUDENT WHERE stdname IS '*A%
- d) What are important transaction properties? 2
- e) ItemName, Price, Qty field of ITEM table are given below. 2

ItemName	Price	Qty
Bat	500	5
Chair	2000	10
Table	5000	6

Based on the given information find the output of the following Queries.

- a) select count(*) from ITEM where price >=2000.
- b) Select avg(price * Qty) from ITEM.
- f) A table ACCOUNT has 3 columns and 5 rows. 3 more rows are inserting into the table and 2 rows get deleted. What is the degree and cardinality of the table? 1
- g) What are the properties of Primary Key? 2

4.

- (a) What is constructor? 1
- (b) Predict the output of the following. 1
int val1=5, val2= 10;
for (int i=1; i<=2;i++)

```
{
    System.out.println(" " + val1++ + " " + --val2);
}
```

(c) What will be the content of jTextField1 after executing the following statement? 1

```
jTextField1.setText("Informatics".substring(2,5));
```

(d) Rewrite the following program code using if else if statement 2

```
switch(ch)
{
    case 'a' : system.out.println("It is a."); break;
    case 'b' : system.out.println("It is b."); break;
    case 'c' : system.out.println("It is c."); break;
}
```

(e) Find the error in the following code and correct it. Underline the correction. 2

```
do
{
    system.out.println(i++);
} while (i<=10);
```

(f) Find the output of the following program 2

```
class MainString
{
    public static void main(String args[])
    {
        StringBuffer city= new StringBuffer("Madras");
        StringBuffer Str= new StringBuffer( );
        Str.append(new String(city));
        Str.insert(0,"Central");
        System.out.println(Str);
    }
}
```

(g) Read the following case study and answer the questions that follow.

A programmer is required to develop a student record. The school offers two different streams, medical and non-medical, with different grading criteria. The following is the data entry screen used to

calculate percentage and grade. * Student can assume name for the controls.

The screenshot shows a window titled "Student Record". It has four text input fields: "First Term Marks", "Second Term Marks", "Percentage", and "Grade". To the right of the first two fields is a "Stream" group box containing two radio buttons: "Medical" and "Non-Medical". Below the "Percentage" field is a "Calculate Percentage" button. Below the "Grade" field is a "Calculate Grade" button. At the bottom of the window are two buttons: "Clear" and "Exit".

1. Write the code for the Frame Window Activate event to disable the Percentage and the Grade text fields. (1)
2. Write the code for the Clear button to clear all the text fields. (1)
3. Write the code for the Calculate button to calculate the percentage to display in text field after finding the total marks of first term and second term (assuming that both marks are out of 100). (2)
4. Write the code for the cmdCalcGrade button to calculate the grade to display in text field txtGrade, depending on the stream selected according to the criteria in the following table: (2)

Stream	Percentage	Grade
Medical	≥ 80	A
	60-80	B
	< 60	C
Non Medical	≥ 75	A
	50-75	B
	< 50	C

5.
 - a) Explain the purpose of DDL and DML statement. Give two examples of each. 2
 - b) Write the output of the following SQL queries. 2
 - (i) `SELECT INSTR('CORPORATE FLOOR','OR');`
 - (ii) `SELECT MID('Welcome',3,4);`
 - (iii) `SELECT SIGN(-15);`
 - (iv) `SELECT ROUND(15.193,1);`
 - c) Write the SQL command for the following on the basis of given table 6

Table:TEACHER

No.	Name	Age	Department	Dateofadm	Salary	Sex
1	Jugal	34	Computer	10/01/97	12000	M
2	Sharmila	31	History	24/03/98	20000	F
3	Sandeep	32	Maths	12/12/96	30000	M
4	Sangeeta	35	History	01/07/99	40000	F
5	Rakesh	42	Maths	05/09/97	25000	M
6	Shyam	50	History	37/06/98	30000	M
7	Shivam	44	Computer	25/02/97	21000	M
8	Shalakra	33	Maths	31/07/97	20000	F

- (i) To show all information about the teachers of History department.
- (ii) To list the names of female teachers who are in Maths department.
- (iii) To list names of all teachers with their date of admission in ascending order.
- (iv) To insert a new row in the TEACHER table with the following data:

9,'Raja', 26,'Computer', '13/05/95', 23000,'M'

- (v) Give the output of the following SQL statements.
 - (a) Select COUNT(DISTINCT department) from TEACHER;
 - (b) Select MAX(Age) from TEACHER where SEX='F';
 - (c)Select AVG(Salary) from TEACHER where SEX='M';
 - (d) Select SUM(Salary) from TEACHER where Date<{12/07/96};

6.a) Write SQL command to create the following table structure. 2

Table: COACH

Field	Type	Constraint
PCode	Integer	PRIMARY KEY
Name	Varchar(20)	NOT NULL
ACode	Integer	FOREIGN KEY which refer the Acode in Table Activity

b) Consider the following tables 'Company' and 'Model' shown below.

Table : Company

CompID	CompName	CompHO	CompPerson
1	Titan	Okhla	Arjun k.
2	Maxima	Shahdara	R.S.Agrawal
3	Anjata	Najafgarh	Dhiraj Goyel

Table : Model

ModelID	CompID	ModelCost
T020	1	2000
M032	4	2500
M039	2	7000
A167	3	800
T024	1	1200

(1) Identify foreign key in Model table and primary key in Company Table. 1

(2) Check every value in CompID column of both tables. Do you find any discrepancy? 1

c) Consider the tables Doctors and Patient given below:

Table : Doctors

DocID	DocName	Department	OPD_days
101	K.K.Mathur	ENT	TTS
102	Ashish Sharma	Paed	MWF
201	Vivek Khurana	Ortho	MWF

Table : Patients

PatNo	PatName	Department	DocID
1	Akash	ENT	101
2	Sameer	Ortho	201
3	Rahul	ENT	101
4	Neha	Paed	102
5	Manoj	Ortho	201

With reference to these two tables, write a SQL query for (i) and (ii) and output for (iii).

(1) Display Patient Name, Patient No and corresponding doctor name for each patient. 2

(2) Display the list of all patients whose OPD_days are 'TTS'. 2

(3) SELECT OPD_days, count(*) 2

```
FROM Doctors,Patients
WHERE Doctors.Department=Patients.Department
GROUP BY OPD_days;
```

7.

- (a) Define an entity. What is meant by entity type and entity instance ? 1
- (b) How has today's technology contributed to e-governance? 2
- (c) Kumar works for a School. He wishes to create controls on a form for the 2
- following functions. Choose appropriate controls from Text field, Label, Radio Button, Check box, List, Combo Box, Button and write in the third column.

S.No.	Controls Used to:	Control
1	Enter Admission Number	
2	Select Stream	
3	Select Subjects	
4	Clear the form	