## Instructions:

i) All questions are compulsory.
ii) Answer the questions after carefully reading the text.
iii) Please check that this question paper contains 7 questions.
iv) Do all the parts of same question together.

1. (a) Tara Nathani wants to upload and download files from/to a remote Internet server, write the name of the relevant communication protocol, which will let her do the same.
(b) Grijesh is confused about Wi-Fi. Whether it is a
(i) Type of network cable
(ii) Set of popular technologies and standards for wireless computer networking.
(iii) Set of computer programs that help people log in to the Internet.
(c). Jai Khanna is confused between the terms Domain Name and URL. Explain the difference with the help of appropriate examples of each.
(d). Identify the types of topology from the following: 2
(i) In which each device with a point-to-point connection to every other device in the network.
(ii) In which there are bi-directional links between each possible node.
(e) Bholu is confused as he is unable to find the name of a network of computers and other devices that is confined to a relatively small space- an office.
Help him do that.
(f) Name an open standard for Office document.
(g) Jayanto Das is confused between Shareware and OSS. Mention at least two points of differences to understand the same.
2. (a) You have assigned a foreground colour and background colour through foreground and background properties of a label. But the label is not showing any background colour. What could be the reason?
(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?controlled loop)?
(e) Face attribute is used with which HTML tag and what is its use?
(f) By which attributes the spacing in cells of table is controlled?
(g) Define the following terms: XML, CSS.
3. (a) Naved wants to list the names of all the tables in his database namely "Status". What commands should he write at MySQL prompt to get this result? 1
(b) A table Sports1 in a database has 3 columns and 30 rows. Another similar table Sports2 has 3 columns and 50 rows. All the records from Sports2 are added into Sports1 table. What is the degree and cardinality of Sports1 table now? 1
(c). Differentiate between primary key and foreign key. 2
(d) Name the package you need to import for performing database connectivity. 1
(e) Suppose a variable Val assign a value 100, write the possible statements to display the value in a JLabel control (jLabel1).
(f) Meena uses an EMP table with following columns:

## NAME, SAL, ID, DNAME

She needs to display names of employees who have not been assigned any department or have been assigned "Pathology" department. Pathology dept's names end with "Pathology". She wrote the following query:

SELECT NAME, SAL
FROM EMP
WHERE DNAME = NULL AND DNAME = "\%Pathology";
But the query is not producing result. Identify the problem.
(g) What will be the output of following queries on the basis of employee table:

2

| empid | ename | salary |
| :--- | :--- | :--- |
| A1 | Bob | NULL |
| B1 | John | 4000 |
| B2 | Tom | 5000 |

(i) select avg(salary) from employee;
(ii) select salary+100 from employee where empid=A1;
4. (a) What will be the contents of jTextField 1 and jTextField 2 after executing the following code:

String name1 = "Hello World";
name1 = name1.toLowerCase( );
String name2= name1.replace(' ', '!');
jTextField1.setText(name1);
jTextField2.setText(name2);
(b) Rewrite the following program code using for loop:
int num=6;
int temp=num;
while (num>=1)
\{ temp=temp-1;
if (temp\%2==0)
System.out.println("Is even");
else
System.out.println("Is odd");
num=num-2;
\}
(c). What will be the contents of j TextArea1 after executing following statement: 1 jTextArea1.setText("Pure\n\nObject\nOrientedltProgramming");
(d). What will be the value of x and y after execution of the following code?
int $x, y=0$;
for $(\mathrm{x}=1 ; \mathrm{x}<=5 ;++\mathrm{x})$
$y=x++;$
--y;
(e) Identify the output in the following code where num1TF contains "12" and num2TF contains " 34 ".
int value= Integer.parselnt(num1TF.getText( ) + num2TF.getText( ));
JOptionPane.showMessageDialog(null," " + (value+1));
(f) Rewrite the correct code underlining all the corrections made:

```
Int i; j=5;
    i== j+5;
    if(i=j)
    { jTextField1.setText("i and j are unequal");
        jTextField2.setText("they are not equal"); break;
    }
    else
        jTextField1.setText("i and j are equal")
```

(g) K.K.Group of hotels has computerized it booking system. The following is the Booking From along with details: (You can assume various names for various controls of the form).

| K.K. Group of Hotels |  |  |
| :---: | :---: | :---: |
| K.K. Group of Hotels (Room Booking Form) |  |  |
| Name of Custormer | $\ulcorner$ Gold Card Member | Type of Room C Single |
| Days to Stay |  | C Doulble |
| Clear | Calculate Charges | Fooding facilities |
| Room Charges Rs. | Discount Rs. | $\ulcorner$ Lunch <br> $\ulcorner$ Dinner |
| Fooding Charges $\mathrm{R}_{\text {s }}$. | Total Rs. |  |

i) When the form loads text boxes for Room charges, fooding charges, discount and total are disabled.
ii) Write the code for exit button so that when a user clicks on exit button Application will be closed. Also display a message "Thank you for your nice visit" before exiting the application.
iii) When the command button Calculate Charges is clicked all the charges along with discount \& Total computed and displayed.
Then criterion for the calculation of charges is given below:
Total $=$ (Room charges + fooding charges - discount)
Single Room:- Rs. 400 per day Double Room :- Rs. 700 per day
Breakfast:- Rs. 100 per day Lunch: Rs. 180 per day Dinner: Rs. 200 per Day
Gold card member will be given $20 \%$ discount on total charges.
5. (a) Sheela needs to remove all the rows in the Sales table to release the storage space without to remove the table structure. Write the statement that she should use?
(b) Jacob is not clear about the difference between the following two statements: 2
(i) select (9-6) *12;
(ii) select (9-6) *12 from empl;

Help him to understand the difference between these two statements if empl table having four rows.
(c). Consider the table Hospital given below. Write commands in MySQL for (i) to (iv) and output for (v) to (vii).

| No | Name | Age | Department | DateOfAdm | Charges | Sex |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Sandeep | 64 | Surgery | $23 / 02 / 97$ | 400 | F |
| 2 | Ravina | 24 | Orthopedic | $20 / 01 / 98$ | 200 | F |
| 3 | Karan | 45 | Orthopedic | $10 / 02 / 97$ | 200 | M |
| 4 | Tarun | 12 | Surgery | $01 / 01 / 98$ | 300 | F |
| 5 | Zubin | 36 | ENT | $12 / 01 / 98$ | 250 | M |
| 6 | Ketaki | 16 | ENT | $12 / 02 / 98$ | 300 | F |
| 7 | Ankita | 29 | Cardiology | $20 / 02 / 98$ | 800 | F |
| 8 | Zareen | 45 | Gynecology | $22 / 02 / 98$ | 500 | F |
| 9 | Kush | 19 | Cardiology | $13 / 01 / 97$ | 800 | M |
| 10 | Shailya | 31 | Medicine | $19 / 02 / 97$ | 400 | F |

(i) To show all information of patients who are in Orthopedic department from hospital table in descending order of their age.
(ii) Increase the charges of male patient in ENT department by 4\%.
(iii) Display a report listing name, age, charges and amount of charges including VAT as $2 \%$ on charges, name the column as total charges.
(iv) To count the number of patients with Age $<30$.
(v) SELECT AVG(Charges) FROM HOSPITAL WHERE SEX='F';
(vi) SELECT COUNT(DISTINCT Department) FROM HOSPITAL;
(vii) SELECT NAME FROM HOSPITAL WHERE DATEOFADM < '12/02/98';
6. (a) Write an MySQL query to create the table 'Menu' with the following structure: 2

| Field | Type | Constraint |
| :--- | :--- | :--- |
| ItemCode | Varchar(5) | Primary Key |
| ItemName | Varchar(20) | Not null |
| Category | Varchar(20) | Default ‘Chinese' |
| Price | Decimal(5,2) | $>100$ |

(b) Consider the tables PEOPLE and PROPERTIES given below:

## PEOPLE

| Name | Phone | PID |
| :--- | :--- | :--- |
| Aisha | 9411223344 | 1 |
| Karan | 9422114455 | 2 |
| Rosy | 9433112244 | 3 |

## PROPERTIES

| PID | SPID | Farm_Name |
| :--- | :--- | :--- |
| 1 | 1 | Old house farm |
| 3 | 2 | Nanada's farm |
| 3 | 3 | Will's farm |
| 3 | 4 | Tall farm |
| 4 | 5 | The florist |

With reference to these tables, write command in SQL for (i) and (ii) \& output for (iii).
(i) Display the name and pid of each person who has a farm. 2
(ii) Display the farm name of farm(s) owned by Karan. 2
(iii) SELECT Name, Phone, Farm_Name 2

FROM PEOPLE right join PRŌPERTIES On PEOPLE.PID = PROPERTIES .PID;
(iv) Which column in the 'PROPERTIES' table is the foreign key?
(v) How many rows will be there in non equi- join of these two tables? 1
7. (a) What is the impact of e-learning sites on students learning process? 1
(b) Name any two web portals involved in e-Business. 1
(c). How has today's technology contributed to e-governance? 1
(d) Vijay works for the school. He wishes to create controls on a form for the following functions. Choose appropriate controls from Text Field, Text Area, Label, Option Button, Check Box, List Box, Combo Box, Button.

| S.No | Control used to | Control |
| :--- | :--- | :--- |
| 1 | Enter Admission No |  |
| 2 | Enter Gender |  |
| 3 | Choose subjects from list of subjects |  |
| 4 | Clear the form |  |

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