

Time-3hrs

M.M. 70

Q.1 What do you understand by Domain Name Resolution?

Q.2 What is a Hub ?

Q.3 Give the following MAC Address, can you identify its parts? Also specify who defines/specifies these parts number?

00:A3:03:51:0E: AC

Q.4 What are the following software used for?

- (i) Mozilla (ii) Apache

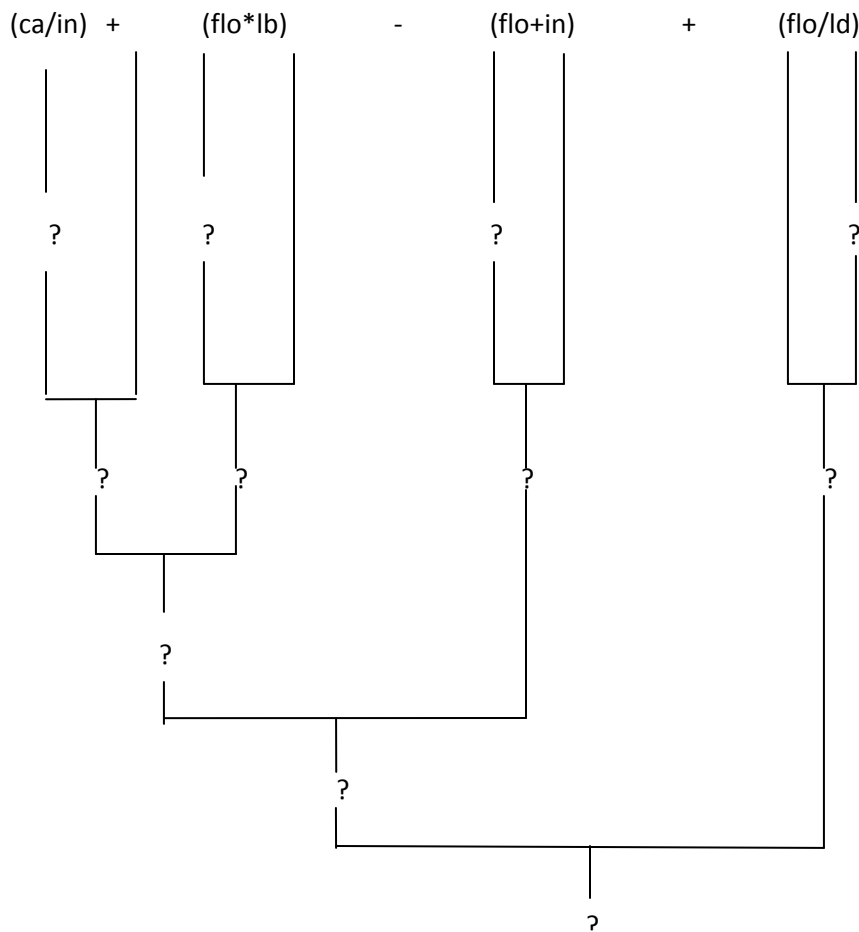
Q.5 Expand the following abbreviations and explain in brief :

- (i) FLOSS (ii) GNU.

Q.6 What do you understand by TTF and OTF ?

Q.7 Differentiate between Evens and Messages.

Q.8 Explain implicit type conversion If the following Data types char=ca, Integer= in, Float=flo, Double=lb, double float= ld, then solve this Hierarchical :-



Section –B

1. Read the following case study and answer the questions that follow:

ABC Company has developed the following interface to enter and display data related to Income Tax of employees.

Income Tax

Enter Emp Code Enter Employee Name

Enter Taxable Income

Income Tax Education Tax Surcharge

Total Tax Amount

Object Type	Object Name	Description
Text Field	JTextField1_ECode	To Enter Employee Code
	JTextField2_EName	To Enter Employee Name
	JTextField3_Tax_Income	To Enter Taxable Income
	JTextField4_IncomeTax	To Enter Income Tax
	JTextField5_Edu_Tax	To Enter Education Tax
	JTextField6_Surcharge	To Enter Surcharge
	JTextField7_Tot_Tax	To Calculate Total Tax Amount

- 2 -

Button	JButton2_Clear	To Provide Corresponding Action
	JButton1_Calculate	

- (a) When Calculate button is clicked, Income Tax, Education Tax, Surcharge, and Total Tax(Sum of Income Tax, Education Tax, Surcharge) is displayed in their respective text boxes based on the following criterion

(3)

- (b) When the user clicks the clear button all textboxes should be set to zero.

(1)

Taxable Income	Income Tax	Education Tax	Surcharge
Upto ₹ 1,00,000	Nil	Nil	Nil
₹ 1,00,000 to 1,50,000	10 % of the amount exceeding ₹ 1,00,000	2% of Taxable Income	Nil

₹ 1,50,000 to 2,50,000	₹ 5,000 + 20% of amount exceeding ₹ 1,50,000	2 % of Taxable Income	Nil
₹ 2,50,000 and above	₹ 25,000 + 30 % of the amount exceeding ₹ 2,50,000	2% of Taxable Income	1% of taxable Income

2. The given form Calculates the GCD (HCF) of two Number's Write code for the command button (jbutton1) to print the GCD in the jTextField3.

(4)

3. Create an application that receive a number through a jTextField1 and Print the sum of the individual digits when the submit button is pressed.

(2)

- 3 -

7. Write a Program in Java to Calculate the Factorial of an Integer using a while loop.

(2)

8. Write a Program in Java to display the following series upto 10 terms

(2)

10 13.5 17 20.5 24.0.....

9. Write a Program in Java to print series squares of first 10 Natural numbers and their sum (2)
10. Using For.....Loop display the following pattern : (2)

```

*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * * *
* * * * * * * * *

```

11. Change the following code using do while loop without affecting the output (2)
- ```

 Int I;

 (for i=10; i>=1; i--)

 {

 System.out.println(i);

 }

```

### Section –C

12. Let us consider the structure of two tables:

**TABLE : TECAHER**

| Column Name | Data Type | Size | Constraint           |
|-------------|-----------|------|----------------------|
| TNO         | VARCHAR   | 4    | PRIMARY KEY NOT NULL |
| TNAME       | CHAR      | 20   |                      |
| TADDRESS    | CHAR      | 10   |                      |
| SALARY      | NUMBER    | 7,2  |                      |
| DEPT_NO     | NUMBER    | 2    | NOT NULL             |
| DOJ         | DATE      |      | NOT NULL             |

**TABLE : DEPARTMENT**

| Column Name | Data Type | Size | Constraint |
|-------------|-----------|------|------------|
| DEPT_NO     | NUMBER    | 2    | NOT NULL   |
| DEPTNAME    | CHAR      | 10   | NOT NULL   |

- (a). Write a SQL – command to create a Teacher and Department table including its constraints.

- (1)
- (b). In DEPARTMENT table add foreign key in the reference of TEACHER table on the field DEPT\_NO.
- (1)
- (c). Write a SQL – command to add a column TPHONE\_NO data type is Number and size is 10 from TEACHER table.
- (1)
- (d). To redefine a column TADDRESS change the data type varchar and length is 30
- (1)
- (e). To add a constraint in Teacher table on SALARY Not Null.
- (1)

13). Consider the Following table Emp :

| EmpNo | Ename   | Job       | Mgr  | Hiredate   | Sal     | Comm.   | Deptno |
|-------|---------|-----------|------|------------|---------|---------|--------|
| 8369  | SMITH   | CLERK     | 8902 | 1990-12-18 | 800.00  | NULL    | 20     |
| 8499  | ANYA    | SALESMAN  | 8698 | 1991-02-20 | 1600.00 | 300.00  | 30     |
| 8521  | SETH    | SALESMAN  | 8698 | 1991-02-22 | 1250.00 | 500     | 30     |
| 8566  | DEV     | MANAGER   | 8839 | 1991-04-02 | 2985.00 | NULL    | 20     |
| 8654  | MOHIN   | SALESMAN  | 8698 | 1991-09-28 | 1250.00 | 1400.00 | 30     |
| 8698  | BINA    | MANAGER   | 8839 | 1991-05-01 | 2850.00 | NULL    | 30     |
| 8882  | SHIVASH | MANAGER   | 8839 | 1991-05-09 | 2450    | NULL    | 30     |
| 8888  | SCOTT   | ANALST    | 8566 | 1992-12-09 | 3000.00 | NULL    | 20     |
| 8839  | AMIR    | PRESIDENT | NULL | 1991-11-18 | 5000.00 | NULL    | 10     |
| 8844  | KULDEEP | SALESMAN  | 8698 | 1991-09-08 | 1500.00 | 0.00    | 30     |
| 8886  | ANOOP   | CLERK     | 8888 | 1993-01-12 | 1100.00 | NULL    | 20     |
| 8900  | JATIN   | CLERK     | 8698 | 1991-12-03 | 950.00  | NULL    | 30     |
| 8902  | FAKIR   | ANALYST   | 8566 | 1991-12-03 | 3000.00 | NULL    | 20     |
| 8934  | MITA    | CLERK     | 8882 | 1992-01-03 | 1300.00 | NULL    | 10     |

- a). To Calculate the total salary from employees of job SALESMAN.
- (1)
- b). To Display the average gross of employees with job is MANAGER or ANALYSY. (1)
- c). To Count the Number of employees in Emp table.
- (1)
- d). To Count the Number of Dept No, the different number belongs to.
- (1)
- e). To display max salary where comm. Is NULL
- (1)

14). Write the SQL- Command for the following on the basis of given table student :

Table : Student

| No. | Name    | Stipend | Stream      | AvgMark | Grade | Class |
|-----|---------|---------|-------------|---------|-------|-------|
| 1   | Karan   | 400.00  | Medical     | 78.5    | B     | 12B   |
| 2   | Divakar | 450.00  | Commerce    | 89.2    | A     | 11C   |
| 3   | Divya   | 300.00  | Commerce    | 68.6    | C     | 12C   |
| 4   | Arun    | 350.00  | Humanities  | 73.1    | B     | 12C   |
| 5   | Sabina  | 500.00  | Non Medical | 90.6    | A     | 11A   |
| 6   | John    | 400.00  | Medical     | 75.4    | B     | 12B   |
| 7   | Robert  | 250.00  | Humanities  | 64.4    | C     | 11A   |
| 8   | Rubina  | 450.00  | Non Medical | 88.5    | A     | 12A   |
| 9   | Vikas   | 500.00  | Non Medical | 92.0    | A     | 12A   |
| 10  | Mohan   | 300.00  | Commerce    | 67.5    | C     | 12C   |

- a). Select all the Medical stream students from student (1)
- b). List the name of those students who are in class 12 Sorted by Stipend and Grade A. (1)
- c). List all students sorted by AvgMarks in descending order. (1)
- d). Display a report, listing name, stipend, stream and amount of Stipend received in a year assuming that the Stipend is paid every month. (1)
- e). Display sum of stipend. (1)

(1)

15). Given a table t3 (Code, Grade, Value)

| Code | Grade | Value |
|------|-------|-------|
| 1    | A1    | 500   |
| 2    | B2    | 560   |
| 3    | B3    | 800   |

- 1). Select \* from t3;
- 2). Insert into t3 values(4, 'A' 200);
- 3).....
- 4). Delete from t3 where Grade='B2';
- 5). .....
- 6). Delete from t3 where Grade='B3';
- 7).....
- a). In line no. 3 Write a command for create save point. (1)
- b). In line no 5 write a command in SQL all data changes made by transaction in the database are undone. (1)
- c). In line 7 Write a command in SQL save the changes. (1)

16) . Write an HTML Code of the following :

a). 2D or 3D horizontal rule will be displayed.

(1)

b). Insert Comment

(1)

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