

```

#1 Exec SQL BEGIN DECLARE SECTION
    char c-frame[64] = "Chris";
    char c-dob[10];
Exec SQL END DECLARE SECTION
Exec SQL DECLARE my-c cursor for
    SELECT DOB
    FROM Employees
    WHERE frame = :c-frame;
Exec SQL OPEN my-c;
Exec SQL fetch my-c into :c-dob;
while (sqlca.sqlcode == 0) {
    printf("%s", c-dob);
    Exec SQL fetch my-c into :c-dob;
}
3
Exec SQL close my-c;

```

```

#2 #sql { UPDATE Employee
    SET SALARY = '50000'
    WHERE SSN = '000111222' }

```

#3

```
Class.forName("oracle.jdbc.driver.OracleDriver")
String url = "jdbc:oracle:www.bookstore.com:3083"
Connection connection;
try {
    Connection connection =
        DriverManager.getConnection(url,
            userId, password);
}
catch (SQLException except) {
    System.out.println(except.getMessage());
    return;
}
```

#4

HTTP responses

200 : OK

400 Bad request

404 : NOT found

#5

In HTTP request header:

After: GET /index.html HTTP/1.1

user-agent: Mozilla/4.0

Answer → accept: text/html, image/gif

#6

```
<!ELEMENT BUSINESSCARD LIST (BUSINESSCARD)* >  
  <!ELEMENT BUSINESSCARD (NAME, COMPANY, PHONE) >  
    <!ELEMENT NAME (FIRSTNAME, LASTNAME) >
```

```
    <!--  
      <!ATTLIST BUSINESSCARD PHONE (Home|Company)  
        #REQUIRED >
```

```
    -->  
  <!ENTITY Oracle CDATA "4150" >
```

⑦ What are the 3 tiers in 3 tiered Internet applications?

The three tiers in 3 tiered Internet applications are

1) Presentation Tier :- What the user sees . eg. ~~JSP~~ pages,
~~web browser~~ HTML, javascript.

2) Middle Tier : The business logic resides here.

3) Data Management tier : DBMS .

#8

$$D = 10 \text{ ms}$$

$$C = 30 \text{ ns} = 30 \times 10^{-6} \text{ ms}$$

$$R = 20 \quad \left(= \left\lceil \frac{8996}{100} \right\rceil \right)$$

$$B = 100$$

$$T = \underbrace{D \log_2 B} + \underbrace{C \log_2 R}$$

$$= 10 \left\lceil \log_2 100 \right\rceil + 30 \times 10^{-6} \left\lceil \log_2 20 \right\rceil = 70 + 150 \times 10^{-6} \text{ ms}$$
$$= 70.00015 \text{ ms}$$

~~$T = 70.00015 \text{ ms}$~~

9 block - a contiguous sequence of disk sectors. Smallest unit OS can read or write

sector - ~~characteristic of the disk~~
~~an arc of data on the disk~~
an arc of data on one track of disk whose size is a characteristic of the disk

cylinder - all tracks of the same diameter in a disk drive.