Q1 :

B -

C – setup part , assertion part , call part

D – Errors :  1 – interface misunderstanding  2- interface misuse  3- timing errors

Guidelines : 1- use stress testing in message passing system

2- deign test causes component to fail
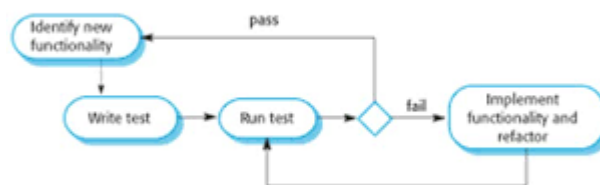
3- test pointer parameters with null pointers

Q2 :

A – regression testing : testing ensure that the previous working code isn't broken due to change  , and use auto framework as Junit cause the test set to auto run as changes is made
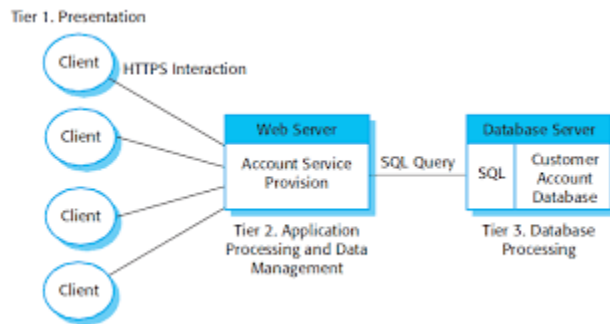
B-

| Thin client | Fat client |
|---|---|
| Presentation layers implemented on client and other layers implemented on server | Application processing implemented on client and data management implemented on server |
| Used when legacy systems are migrated to client server architecture | More processing is delegated to client as application processing is locally executed |
| | |

C -

D-



Tier 1. Presentation

Client — HTTPS Interaction

Client

**Web Server**
Account Service Provision

SQL Query

**Database Server**
SQL — Customer Account Database

Client

Tier 2. Application Processing and Data Management

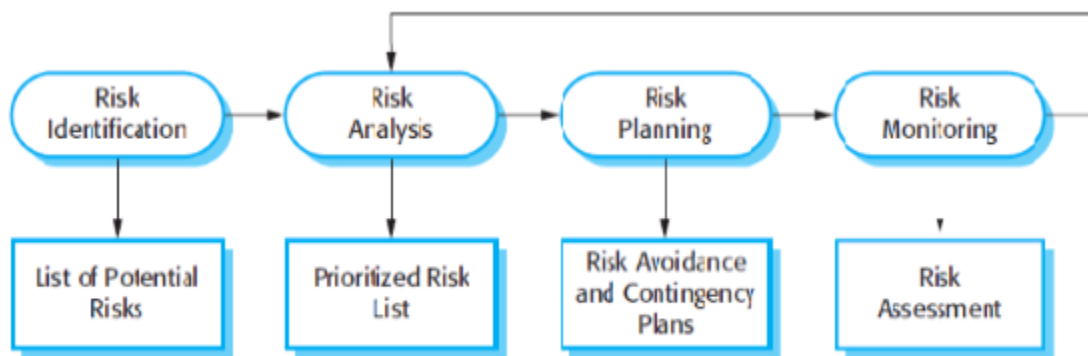Tier 3. Database Processing

Client

E- The most appropriate reliability metric is Probability of Failure on demand (POFOD). This is the probability that the system will respond correctly when a request is made for service at a given point in time.

Q3 :

A- 1- proposal writing 2- project planning 3- project costing 4- project monitoring 5- report writing 6- personnel selection

B- project plan is developed based on the available information at that moment. Thus, at the begin time of the project, we develop the plan without knowing enough uncertain matters that relevant to the project. When the project progress, there are more matters relevant to the project become available.

C -



Risk Identification → Risk Analysis → Risk Planning → Risk Monitoring

List of Potential Risks | Prioritized Risk List | Risk Avoidance and Contingency Plans | Risk Assessment

**Fig 1. Risk management process**

D - Management activities such as proposal writing, project planning

and communication skills ;

Programming skills are distinct from these  so it does not follow that good
programmers can re-orient their abilities to be good managers.

Q4 :

1- false
2- false
3- true
4- false
5- false
6- false
7- false
8- true
9- true
10- true
11- true
12- true

Q5 :

1- Availability
2- Availability
3- Deliverables
4- Master slave
5- Milestones
6- Project
7- Redundancy
8- Reliability
9- Reporting
10- Two tier
11- Unit
12- Unit