**Q.1 what is SDLC ?**

Ans. Software development life cycle is a process

Used by the software industry to design ,develop and test high quality software.

**Q.2 what is software testing ?**

Ans. software testing is a process used to identify the correctness , completeness, and quality of develop computer software .

**Q.3 what is agile methodology?**

* it is a combination interactive and increment model .
* it divides the software into small incremental builds are provided in iterations ,that means the big projects are divided in small chunks [iterations]
* each iteration last about one to three weeks .
* each iteration involves all the team members working simultaneously in areas like planning, requirement, analysis , design ,coding ,unit testing and acceptance testing .
* at the end of the iteration the working product is displayed to the customer or the important stake holder and it is released in the market .
* after the release we check for the feedback of the deployed software .
* if any enhancement is needs in the project then it's done and it's re -realeased.

**Q.4 what is SRS?**

A sofware requirement specification is a complete description of the behavior of system to be developed .

**Q. 5 write SDLC phases with basic introduction** .

|  |  |
| --- | --- |
| Requirements gathering  Analysis | Establish customer needs.  Model and specify the requirements “what” |
| Design | Model and specify a solution “why” |
| Implementation | Construct a solution in software |
| Testing | Validate the solution against the requirements. |
| Maintenance | Repair defects and adapt the solution to the new requirements. |

**Q.6 What is oops ?**

* Identifying objects and assingning responsibilities to these object .
* oops is a way of writing the programs in organized way objects are like a black box where data are hidden.

**Q.7 write basic concepts of oops**

1. Class
2. Object
3. inheritance
4. polymorphism (1) over ridding (2) over loading
5. Encapsulation
6. Abstraction

**Q.8 What is object**

Ans . Oject gives the permission to access functionality of class.

**Q.9 What is class**

Ans. class is a collection of data member and member function .

**Q.10 What is encapsulation**

Ans . The process wrapping the data in a single unit , to secure the data from outside world.

**Q.11 What is inheritance**

Ans . Making a class from an existing class, deriving the attribute of some other class.

**Q. 11. What is polymorphism**

Ans :- One name multiple from .

**Q.12 . Explain Phases Of The Waterfall Model**

Ans . - the waterfall is unrealistic for many reasons, especially .

- requirements must be **" Frozen "** to early in the life cycle .

- requirements are **validated to late** .

**1. Requirements gathering**

Estabish customer needs . Types of requirements :

1. customer requirements
2. Functional requirements
3. Non- functional requirements

**2. Analysis**

This phese defines the problem that the coustomer is trying to solve .

Details on computer programming languages and environments , machines , packages , application architacture , distributed architacture layering , memory size , platform , algorithms ,data structure , global type definatins , interfaces and many other engineering details are established .

**3. design**

(1) design architecture document

(2) implementation plan

(3) critical priority analysis

(4) performance analysis

(5) test plan

**4. Implementation Phase**

in the implementation phase, the team builds the components either

from scratch or by composition.

**5. Testing phase**

The testing phase is a separate phase which is performed by a different

team after the implementation is completed.

**6. Maintenance Phase**

Maintenance is the process of changing a system after it has been deployed.

**⚫ Corrective maintenance:** identifying and repairing defects

**⚫ Adaptive maintenance:** adapting the existing solution to the new platforms.

**⚫ Perfective Maintenance:** implementing the new requirements in a spiral life cycle everything after the delivery and deployment of thefirst prototype can be considered “maintenance”!

**Q.13 write phases of spiral model**

Ans. (1) planning

(2) design

(3) evaluation

**Q .14 Explain working methodology of agile model and also write pros and cons .**

* Agile SDLC model is a combination of iterative and incremental

process models with focus on process adaptability and customer

satisfaction by rapid delivery of working software product.

* Agile Methods break the product into small incremental builds.

These builds are provided in iterations.

* Each iteration typically lasts from about one to three weeks.
* **Pros**
* Is a very realistic approach to software development
* Promotes teamwork and cross training.
* Functionality can be developed rapidly and demonstrated.
* Resource requirements are minimum.
* Suitable for fixed or changing requirements
* Delivers early partial working solutions.
* **Cons**
* Not suitable for handling complex dependencies.
* More risk of sustainability, maintainability and extensibility.







