

Name - Md Rakib Hasan.

ID - 2216080021

Course - Software Engineering

Code - CSI 321

Answer to the Question Number - 1

(a) Ans: Software Engineering: Software Engineering is the design Development testing And Maintenance of Software Application. Software Engineers Apply Engineering principles and Knowledge Of programming language to build Software Solution for end user.

Answer to the Question No - 21 B

(b) Ans: SDLC Activities:

- ⇒ Communication, This is the first step where the user initiates the Request for a desired Software product.
- ⇒ Requirement Gathering. The step onwards the Software development team works to carry on the project.
- ⇒ Feasibility Study ⇒ System Analysis ⇒ Coding ---
- ⇒ testing --- ⇒ Integration.

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① Spiral model:

The spiral Model is one of the most important Software Development Life cycle model which provides support Risk Handling in its diagrammatic representation, it looks like a spiral with many loops.

The exact Number of loops of the spiral is unknown

and can vary from project. Each loop of the spiral is called a phase of the software development process.

The exact Number of phases needs to develop the product can be varied by the project manager depending upon the project risks. As the project manager has an important role to develop a

product using the spiral model. The spiral model is a software Development life cycle (SDLC).

model that provides a systematic and iterative

approach to software.

(3)

③ Answer:

V - model:

The V-model is an SDLC model

Where execution of processes happens in a sequential manner in a V-Shape. It is also known as verification and validation

V-model is an Extension of waterfall model

Model. The V-model is an association of a testing phase for

And is based on the association of a testing phase for each corresponding development stage. This means that for

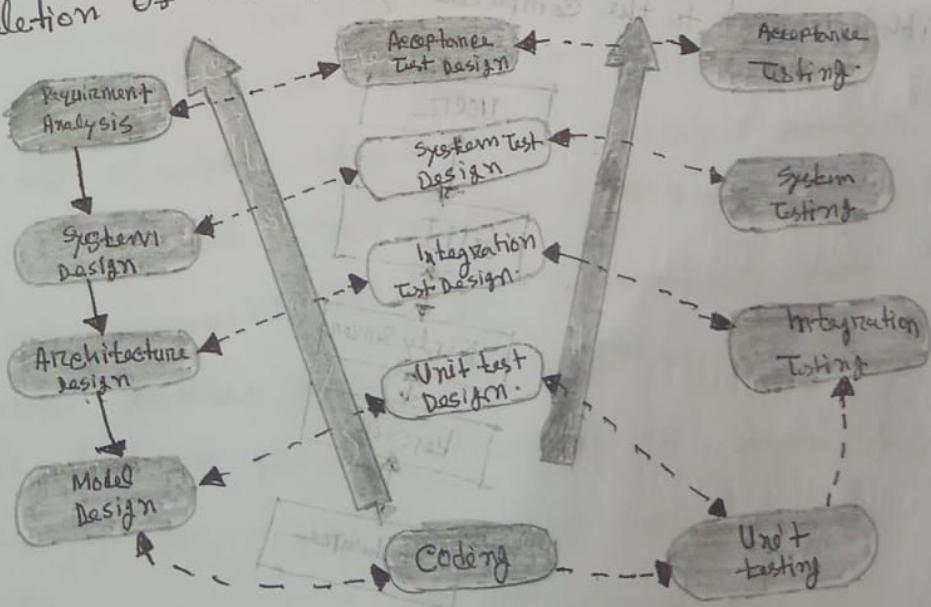
every single phase in the development cycle there is a

directly associated testing phase. This is highly

designed. Directly after the next phase starts Only After

Completed Model and the next phase starts Only After

Completion of the previous phase.



V- Model

(4)

(d) Ans: Graphical User Interface (GUI)

GUI is an interface that allows user to interact with different electronic device using icons and other visual indicators. The graphical user interface were created because command line interface were quit complicated.

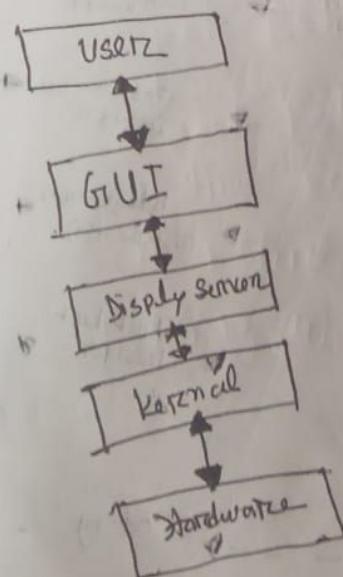
And it was difficult to learn all the commands in it.

In todays time, graphical user interface are used in

many device such as mobile, MP3 players, gaming

device, Smartphones etc.

⇒ The below diagram provides the position of the GUI with respect to the computer system.



(5)

Answer to Question No - 2

(a) Answers

project managers

project managers in Software Organization

project and can assign tasks to Software engineering

teams according to the specifications of a task.

Software project manager use their leadership skills, technical knowledge and experience to direct their teams and ensure software needs client requirement.

(b) Ans: project manager role and responsibilities:

A Software project manager is the most important person inside a team who takes the overall responsibilities to manage to manage the software project and plays an important role in the successful completion of the project. A project manager has to face many difficult situations to accomplish these works. in fact the job responsibilities of a project manager range from invisible actives like building up team morale to highly visible customer presentations. most of the manager take responsibility for writing the project proposal, project cost estimation, scheduling, project and staffing software projects, etc.

Tutoring project monitoring and control, software

Configuration management, risk, risk management

managerial Report writing and presentation and

interfacing with clients. The task of a project

manager are classified into two major type's

① project planning.

② project monitoring and control.

project planning: project planning is undertaken

immediately after the feasibility study phase and
before the starting of the requirement analysis.

And specification

① project Estimation.

① cost Estimation

② time Estimation

③ Effort

② scheduling

③ staffing

④ Risk management

⑤ miscellaneous plan

(7)

6) Responsibilities:

- ⇒ Knowledge of project estimation techniques.
- ⇒ Good decision-making abilities at the right time.
- ⇒ Previous experience managing or similar type of project.
- ⇒ A project manager must encourage all the team members to successfully develop the product.
- ⇒ He must know the various type of risks that may occur and the solution to these problems.

7) ③ Answer:

Object of software design: The object of

Software Design process are correctness, completeness, efficiency, flexibility, consistency, and maintainability.

The object of system design is to create plan for a software or hardware system that meets the need and requirements of a customer or user. This plan

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typically include detailed specification for the system including its architecture components

And interfacing

System Design is an important step in the development process of any system. as it

service as the foundation for the important

implementation and deployment of the system.

A well-designed system can help ensure

that the system is reliable, efficient, and

user-friendly.