Capstone Project -1

Question 1 – BPM

Answer:

A business process means a set of steps or tasks that help us reach a goal. It shows how work is done in a company.

Process Model for Online Agriculture Store -

1. Goal: Help farmers in villages to buy products like seeds, fertilizers, and pesticides using a mobile app or website.

2. Input: Product details (catalog) from the manufacture.

3. Resource: Internet connection, Mobile app or Website and Computers.

4. Output: Farmer chooses the product, Make the Payment, Product gets delivered & Invoice generated by online and offline.

5. Activities: Farmer chooses the requirement of product from the catalogue – Add to cart – Enter delivery address – Makes the Payment – Product gets delivered – Invoice will be generated by online & offline. (PRODUCT DETAILS WILL BE GIVEN BY MANUFACTURER)

6. End Value: Fast service, Customer satisfaction, easy buying and low prices because of direct contact with manufacturer.

Question 2 – SWOT

Answer:

SWOT helps us understand Internal Factors Strength & Weakness and External Factors Opportunity & Threats.

SWOT Analysis:

1. Strengths

a) Direct link between farmer and manufacturer.

b) Product details are clear because they are directly from manufacturer.

c) Already established market but new version of entry and complete feasibility to farmers.

2. Weakness:

a) Poor internet connection in remote areas.

b) Not everyone knows how to use mobile apps or computer.

c) Some farmers may not trust online.

3. Opportunity:

a) Government supports digital farming.

b) Scope to expand more Agriculture materials.

4. Threats:

a) Government Schemes give free products.

b) Farmers may still prefer local shops.

Question 3 – Feasibility Study

Answer:

A feasibility study checks if a project is possible and useful.

Technology: It must be User friendly, Use a database, Payment gateway.

Hardware: Servers, Good internet, Security and Backup.

Team: Java developers.

Budget: ₹2 Crores.

Time: 18 months.

Question – 5 GAP Analysis

Answer:

GAP means the difference between "what is happening now" and "what we want to happen".

Current State	***Future State***
1. Farmers finding hard to get farming products. 2. No direct contact between farmer and manufacturer. 3. Products are costly and limited choices 4. No awareness on product quality.	1. Can order products online easily. 2. Direct communications establishment. 3. Get more choices at better prices. 4. Get educated on quality.

Question 5 – Risk Analysis

Answer:

Risk means something that can go wrong in a project.

1. Internal Risks:

a) Lack of coordination between development team members.

b) Miscommunication between BA and development team.

c) Developers not understanding farmer needs.

2. External Risks:

a) Poor internet connection in villages & remote areas.

3. Business Analysis Risk:

a) Wrong or missing requirements.

b) Lack of knowledge of farming.

4. Project Risks:

a) Delay in delivery.

b) Running over ₹2 Crore budgets.

c) Lack of farmer (user) training.

Question 6 – Stakeholder Analysis (RACI Matrix)

Answer:

Stakeholders are people involved in the project.

R = Responsible (Does the work)

A = Accountable (Owner of the work)

C = Consulted (Gives advice)

I = Informed (Needs updates)

	Name	***Designation***
Responsible	Mr. Karthik	Delivery Work
	Mr. Maharshi	Business Analyst
	Mr. Vandanam	Project Manager
Accountable	Mr. Vandanam	Project Manager
	Mr. Dooku	Project Coordinator
Consulted	Mr. Pandu	Financial Head
	Mr. Henry	Client
	Others	Developers & Admin
Informed	Mr. Henry	Client
	Peter, Kelvin & Ben	Farmers

Question 7 – Business Case Document

Answer:

This project solves the real problems of farmers.

Problems:

1. Farmers in remote areas are struggling to get the supplies they need.

2. There is a communication gap between manufacturers or sellers and farmers

Solution:

1. Farmers buy products directly from manufacturers, cutting out the middlemen.
2. Farmers tell what they need, manufacturers understand better.

Question 8 – Four SDLC Methodologies

Answer:

There are different ways to build software. These are called SDLC models.

1. Sequential – Waterfall

a) Step-by-step model.
b) One phase or part finishes before next starts.

2. Iterative – RUP (Rational Unified Process)

a) Built in parts (modules).
b) Each part can be changed and improved.
c) It requires more resources & budget.

3. Evolutionary – Spiral

a) Focus on risks and plans.
b) Goes through steps again and again.
c) It has four Phases – Planning, Risk Analysis, Engineering and Evolution.

4. Agile – Scrum

a) Fast development.
b) Flexible, can accept changes anytime.

Question 9 - Waterfall, RUP, Spiral and Scrum

Answer:

1. Waterfall - Projects with clear goals and simple.
2. RUP - Large and complicated projects that take more time and effort to manage.
3. Spiral - High Risk projects needing regular check-ups.
4. Scrum - Projects needing fast and flexible development.

Question 10 – Waterfall vs V Model

Answer:

Waterfall Model	***V-Model***
Low Cost	Expensive
Testing happens after development	Testing happens in every stage
Limited client meetings	Client involved at every step
Easy to use	Hard to manage

Question 11 - Justify Your Answer

Answer:

I feel to choose the Waterfall model for this project because the requirements are already clear and fixed. In this project, farmers need a simple app to buy seeds, fertilizers, and pesticides online and there are not many changes expected later.

Waterfall model is easy to understand, works step by step, and it also helps in planning of budget and time. Since this project has a fixed timeline of 18 months and a budget of 2 crores. Also, this is a small project, so we don't need complex models like Spiral or Agile. That's why Waterfall is best fit here.

Question 12 – Gantt Chart

Answer:

Table that shows "who does what and when".

Resource	RG	RA	D1	T1	D2	T2	D3	T3	D4	T4	UAT
PM	Yes	Yes	Yes		Yes		Yes		Yes		Yes
BA	Yes	Yes		Yes		Yes		Yes		Yes	Yes
Java Developers			Yes		Yes		Yes		Yes		
Testers				Yes		Yes		Yes		Yes	Yes
DB Admin			Yes		Yes						
NW Admin					Yes						

Question 13 - Fixed Bid vs Billing

Answer:

Fixed Bid: Fixed price for full work, total money is decided at the beginning for the whole project. The work is fixed and clearly planned. If there are any problems or extra costs, the company has to manage them. This type of pricing is mostly used in Indian projects.

Billing: Pay as per hours or client pays based on the time or amount of work completed. The scope of the project can change as the work goes on. The risk is shared between the client and the company. This type of pricing is mostly used for international clients

Question 14 – Timesheets

Answer – Timesheet of BA in various SDLC Stages:

BA Time Sheets for different stages and in this all tasks generally take around 8 hours per day.

1. Design Phase - Prepare test cases, write user manuals, and update the Requirement Traceability Matrix (RTM) to keep everything clear.
2. Development Phase - Update the user manual and arrange JAD sessions to keep everything clear and up to date.
3. Testing Phase - Help test the software, update the documents, and share solutions with the client.
4. UAT Phase (User Testing) - Guide the client to test the app and collect their feedback.
5. Deployment Phase - Plan the training and help with the final setup of the app.