1) What is Scrum? Explain key components and How it works.

→ Scrum is an agile framework used to develop and deliver complex products through iterative and incremental practices.

Key components:

a) Roles:
- Product Owner: Defines the product backlog and prioritizes.
- Scrum Master: Facilitates the Scrum process, removes obstacles.
- Development Team: Cross-functional team that builds product

b) Artifact:
- Product Backlog: A prioritized list of features, enhancements
- Sprint Backlog: A subset of product backlog selected for a sprint
- Increment: A working product delivered at the end of each point

c) Events:
- Sprint: a time-boxed iteration (2-u weeks)
- Sprint Planning: Meeting to decide what to do in the sprint.
- Daily Scrum: 15-minute stand-up meeting to sync the team.
- Sprint Review: Demonstration of completed work to stakeholders.

How it works?,

1. Product Owner creates and prioritizes the product Backlog.
2. In Sprint Planning, the team selects tasks to work on.
3. During the sprint, the team meets daily to track progress.
4. At the end, they present work in a Sprint Review.
5. The team reflects and improves in the Sprint Retrospective.
6. The cycle repeats for each sprint until the product is complete.

② What is a Method for Changing Managing Workflow Using Virtual Boards?

→ Kanban is a method used for managing workflow using visual boards.

- Kanban Board: A visual representation of work items
    - To Do
    - In Progress
    - Done.

③ What are the Benefits and Challenging of Scrum and kanban?

Scrum:-

Benefits:
- Encourages collabration & team ownership.
- Allows regular feedback and adaptation
- Clear roles and structured process.

Challenges:
- Requirems strict adherence to time-boxing
- Needs experienced team and Scrum master.
- Not Ideal for continuous flow enviroments.

Kanban:-

Benefits:
- Visualizes work and improves transparancy.
- Supports continuous delivery.
- Easy to implement and adapt.

challenges:
- Less structured, may lead to lack of discipline.
- No predefined roles; responsibilities may blur.
- Prioritization can become unclear.