1. **What are the common Phases of Software development ?**

   a. **Requirements**
   b. **Design**
   c. **Development**
   d. **Testing**
   e. **Maintenance**

2. **What is waterfall methodology?**

   **You complete one phase before moving on to the next phase**

3. **What is agile methodology?**
   **-way to manage software teams & projects**
   **-Group of software development methods**

4. **What are these methods?**
   - **Adaptive software development (ASD)**
   - **Agile modeling**
   - **Agile Unified Process (AUP)**
   - **Business analyst designer method (BADM)[33]**
   - **Crystal Clear Methods**
   - **Disciplined agile delivery**
   - **Dynamic systems development method (DSDM)**
   - **Extreme programming (XP)**
   - **Feature-driven development (FDD)**
   - **Lean software development**
   - **Kanban (development)**
   - **Scrum**
   - **Scrumban**

   **Example:**
   **========**
   **Scrum:**
   1. **iterative and incremental agile software development method.**
   2. **In the SCRUM methodology a sprint is the basic unit of development**

5. **What are agile practices/ activities/ common things done while implementing one of the agile methods ?**

   i) **Continuous integration**
   ii) **Pair programming**
   iii) **Refactoring**
   iv) **Test-driven development**
   v) **Use case**

6. **What are the 10 principles of agile methodology?**
   **1. Active user involvement is imperative**
   **2. The team must be empowered to make decisions**
   *(all team members have power to take decision)*

   3. **Requirements evolve but the timescale is fixed**
      **(end of semester)**
   **4. Capture requirements at a high level; lightweight & visual**
   **5. Develop small, incremental releases and iterate**
   **(we must work with iterations)**
   **6. Focus on frequent delivery of products**
   **7. Complete each feature before moving on to the next**
   **8. Apply the 80/20 rule**
   **(80 % of your results comes out from 20 % of your work)**
   **9. Testing is integrated throughout the project lifecycle – test early and often**
   **10. A collaborative & cooperative approach between all stakeholders is essential**

7. **Advantages and disadvantages of Agile methodology?**
   **Advantages:**
   **==========**
   **1. Promotes teamwork and cross training.**
   **2. Suitable for fixed or changing requirements**
   **3. Little or no planning required**
   **Disadvantages:**
   **=============**
   **1. Depends heavily on customer interaction**
   **2. Minimum documentation generated**