1. List 3 types of non-functional requirement
   - ➔ 1. **Security:** In every system security is a major factor to protect the data. So, the security. For e.g., Banking data must be safe and there should be some authentication and authorization mechanism. So, in accessing bank account there is common practice to login using username and password and as an additional requirement we also get OTP on our mobile phones or email for secondary verifications.
   - ➔ 2. **Capacity:** The capacity of the system refers to amount of storage provided by the system. Based on the capacity of the device many applications work or do not. For e.g., many games have some specific storage space to be installed in the system.
   - ➔ **3. Portability:** Portability refers how one software can perform on other environments. For e.g., how a web application work on mobile, iPad or computer or how a software works on old phone as compared to old phone.

2. What are principal stages of requirement engineering process
   - ➔ Principle of requirement engineering process are:
     1. **Requirement Elicitation**: It means to take requirements from stakeholders
     2. **Requirement analysis**: It makes sure the requirements given by the stakeholders are met
     3. **Requirement Specifications**: It means to get the requirements and document in correct format and get approval from the stakeholders.
     4. **Requirement Validations**: Make sure requirements are consistent, atomic, and verifiable.
     5. **Requirement Management**: Change the requirement through maintenance activities.
3. Give 5 reasons why eliciting requirement is difficult
   - ➔ 1. Every stakeholder have separate requirement so while doing the entire requirement analysis we have to consider common requirements, conflicting requirements which makes it difficult to make the correct and accurate requirements.
     2. Stakeholders sometimes do not know the entire system and that makes it difficult to create the requirements of system.
     3. Stakeholders can be people of different domains and hence can use terms which are not clear to requirement engineer.
     4. Business needs constantly change and hence new requirements may be added in the future.
     5. Political factors affect Requirements for e.g. Manager may want to add some additional requirement.

4. What is the main advantages of using a standard format to specify requirements
   - ➔ The main advantage of using standard format to specify requirement is readability. With this requirement become easy to read and there is less chance to forget anything in the requirement document. Also, if every document has same format automation of some tasks could be done.

5. How do managers and test engineer use a system requirements document.
   ➔ Managers use system requirements documents to plan different modules of the system and plan entire system development process. Test engineers use system requirement document to understand the system and create different test cases.

6. What checks should be applied during requirements validation
   ➔ Checks that should be applied during requirements validation is
      1. **Validity**: The function that stakeholder defined must be there in the document.
      2. **Consistency**: There should not be conflicting requirements in the document.
      3. **Completeness**: Document must be including all considerations given by the stakeholder.
      4. **Realism**: It checks that requirements given can be satisfied and converted into system functions
      5. **Verifiability**: The requirements must be written in a way so they can be tested.

7. List three requirements validation technique
   ➔ 1. Test case generation
      2. Requirement reviews
      3. Prototyping