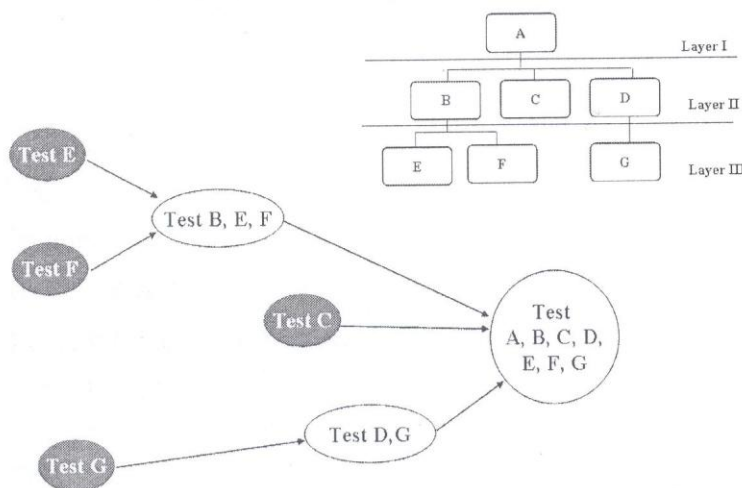


Software Engineering

Part A 50%

1. Reliability and safety are related but distinct dependability attributes. Describe the most important distinction between these attributes and explain why it is possible for a reliable system to be unsafe and vice versa. 15%
2. Draw an activity diagram depicting these activities, assuming they are executed strictly sequentially. Draw a second activity diagram depicting the same activities occurring incrementally (i.e., one part of the system is analyzed, designed, implemented, and tested completely before the next part of the system is developed). Draw a third activity diagram depicting the same activities occurring concurrently. 15%
3. Object types can be explained as: model, view, and control (MVC). Please describe the benefits of using this type of design. 10%
4. Describe the pros and cons of the following test strategy. 10%



Part B 50%

1. Please list and explain the difference between science and engineering? 10%
2. What is software measurement? From project management, are there three main metric categories in software measurement? 10%
3. Please list and describe some common software measurement methods. 10%
4. What is software quality management? How to judge quality of a software application? please explain your judgment methods.20%