

CMSC 435 (Section 0201) : Quiz 6

1. **Please remember to write your name and SSN on this sheet before handing it in.**
2. What are the benefits of designing software architecture in advance?
 - Stakeholder communication - Architecture may be used as a focus of discussion by system stakeholders.
 - System analysis - Analysis of whether the system can meet its non-functional requirements
 - Large-scale reuse - The architecture may be reusable across a range of systems
3. Briefly describe the three main aspects of the architectural design process.
 - System structuring - The system is decomposed into several principal sub-systems and communications between these sub-systems are identified.
 - Control modelling - A model of the control relationships between the different parts of the system is established.
 - Modular decomposition - The identified sub-systems are decomposed into modules.
4. What is the difference between sub-systems and modules?
 - A sub-system is a system in its own right whose operation is independent of the services provided by other sub-systems.
 - A module is a system component that provides services to other components but would not normally be considered as a separate system.
5. What is a reference architecture? What are they useful for?
 - Reference models are derived from a study of the application domain rather than from existing systems.
 - May be used as a basis for system implementation or to compare different systems. It acts as a standard against which systems can be evaluated.