**Answers to Seminar 3 activity.**

1. *What is the meaning of analysis? What is the purpose of the analysis phase of the SDLC?*

The term analysis can be defined as: breaking a whole into its parts with the intent of understanding the parts’ nature, function, and interrelationships. The analysis phase takes the general ideas in the system request and refines them into a detailed understanding of what the new system needs to do.

1. *What are the key elements of a system proposal?*

Key elements of a System Proposal include: detailed requirements definition, use cases, process models, data models, a revised feasibility analysis and a work plan.

1. *Explain what is meant by a functional requirement. What are two types of functional requirements? Give two examples of each.*

A functional requirement relates directly to a process the system has to perform (process-oriented) or information it needs to contain (information-oriented).

1. *Explain what is meant by a nonfunctional requirement. What are the primary types of nonfunctional requirements? Give two examples of each.*

A nonfunctional requirement refers to behavioral properties that the system must exhibit. Types of nonfunctional requirements include: Operational, Performance, Security, and Cultural and Political.

1. *What are the three basic steps of the analysis process? Is each step performed in every project? Why or why not?*

[1] Understand the as-is system - study the existing system and processes and understand the strengths and weaknesses.

[2] Identify improvement opportunities - look for the specific things that need to change.

[3] Develop a system concept – create one or more target conceptualizations for the to-be system, including an outline of features and models of its basic design.

The first step is sometimes skipped or done in a cursory fashion. This is because there may not be an existing system to study, the existing system may be irrelevant to the new system, or the methodology in use (particularly RAD and Agile Development) does not emphasize the existing system at all.

1. *Discuss the appropriate way to set up and conduct interviews to elicit requirements.*

The most commonly used requirement elicitation technique is interviews. People at different levels of the organization will have different viewpoints on the system, so it is important to include both management and staff to gain high-level and low-level perspectives.

When the interview process is conducted the first goal is to build rapport with the interviewee so that he or she trusts you and is willing to tell you the whole truth. The interviewer needs to be unbiased and independent seeker of information. The interview should start with an explanation of why the interviewee and interviewer are there and why they were chosen.

It is critical that all information be accurately recorded. The best approach is to take careful notes, write down everything the interviewee says, regardless of relevancy. The information may prove to be relevant at a later time, remember, be unbiased.

As the interview draws to a close make sure that there is time available for the interviewee to ask questions or provide information that they think is important but perhaps had not been covered in the interview.

The five major steps to conducting interviews are:

1. Selecting interviewees - determine who should be interviewed, why they should be interviewed (what contribution will they make to the project?), and develop a schedule for conducting the interviews.
2. Design the interview questions - depending on who is being interviewed and the type of information desired, the analyst needs to design the interview session with the appropriate structure and question type.
3. Prepare for the interview - review related material; review interview plan; review interview questions and plan for any anticipated problem areas; inform interviewee about interview agenda.
4. Conduct the interview - establish rapport with the interviewee; explain purpose of interview; ask interview questions; record information from interviewee.
5. Prepare post-interview report - summarize the interview in an interview report.
6. *“Interviews should always be conducted as structured interviews.” Do you agree with this statement? Why or why not?*

No one interview type will be appropriate for every interview and each type of interview has a purpose. Structured interviews are interviews that are planned to gather very specific, detailed information. These interviews use more closed-ended questions that zero in on specific information and facts. These interviews will be conducted later in the information gathering process, when the analyst has learned enough about the business process in order to formulate more specific, detailed questions.

Unstructured interviews are interviews that are planned to include broad, far-ranging questions. Often open-ended questions are used to gather information. These interviews are most likely to be used early in the information gathering process, when few details are known, and the analyst is trying to understand the basic business process and the As-Is system.

1. *Discuss the considerations that should be made when determining who to include in interviews and/or JAD sessions.*

First, identify the information that is needed, and then identify the people who can provide that information. Second, consider the political ramifications of including or excluding people. All key stakeholders must be included in the information gathering process.

1. *Discuss the reasons why question design for questionnaires is so difficult.*

Questions on questionnaires need to be very carefully stated in order to avoid misunderstanding by the recipient. If a question during an interview or a JAD session is misunderstood, the misunderstanding can be immediately detected and the question clarified. A poorly worded question on a questionnaire may confuse the recipient, causing him/her to answer with incorrect information, or may antagonize the recipient, causing him/her to forego completing the questionnaire.