1. What are the characteristics of good software?
2. What are the advantages and disadvantages of a having a technical wizard in your project team.
3. What are the advantages and disadvantages of a having a communication wizard in your project team.
4. What are the characteristics of a good project team?
5. Explain why system testing costs are particularly high for generic software products which are sold to a very wide market.
6. How other systems within a system's environment can have unanticipated affects on the functioning of a system.
7. Why specifying a system to be used by emergency services for disaster management is a very difficult problem.
8. Explain why a software system that is used in real world environment must change or become progressively less useful.
9. Why the best programmers often don't make best software managers
10. Discuss the pros And cons of letting people rotate between projects of different application domains
11. Why software quality organization is independent of the development organization
12. Suppose you are a manager of a project that is getting seriously behind schedule. Your team is having a severe problem with testing a particular sub system. Your Client is pressing you to deliver the product on time. How would you handle the situation? How would you handle the situation if you were member of a team and your manager was not paying serious attention to your problem?
13. How the requirement elicitation is different in case of embedded system of elevator control and an office automation system.
14. Why language is so important is software design?
15. Discuss an example of a type of system where social and political factors might strongly influence the system requirements. Explain why these factors are important in your example.
16. You have developed a throw away prototype system for a client who is very happy with it. However, she suggests that there is no need to develop another system but that you should deliver the prototype and offers an excellent price for the system. You know that there may be future problems with maintaining the system. Discuss how you will respond.
17. What factors should be taken into account when designing a menu based interface for walk up systems such as ATMs.
18. Design a questionnaire to gather information about the user interface of a word processor.
19. Assume that you are a project manager for a company that builds software for Consumer products. You have been contracted to build the software for a home security system. Write a statement of scope that describes the software.

20. Describe five software application areas in which software safety and hazard Analysis would be a major concern.
21. Although adding people late in the software project can make it later, there are circumstances in which this is not true. Describe them.
22. You have been appointed a project manager for a major software product company. Your job is to manage the development of a next generation version of its widely used word processor software product. Because competition in intense, tight deadlines has been established and announced. What team structure would you choose and why? What software process models would you choose & why.
23. Discuss an example of a type of system where social and political factors might strongly influence the system requirements. Explain why these factors are important in your example.
24. Discover ambiguities or omissions in the following statement of requirements for the following: An automated ticket issuing system sells rail tickets. Users select their destination and input a credit card and a personnel identification number. The rail ticket is issued and their credit card account charged with its cost. When the user presses the start button, a menu display of potential destinations is activated along with a message to the user to select a destination. Once a destination has been selected, users are requested to input their credit card. Its validity is checked and the user is then requested to input a personal identifier. When the credit transaction has been validated, the ticket is issued.
25. You have developed a throw away prototype system for a client who is very happy with it. However, she suggests that there is no need to develop another system but that you should deliver the prototype and offers an excellent price for the system. You know that there may be future problems with maintaining the system. Discuss how you will respond.
26. What factors should be taken into account when designing a menu based interface for walk up systems such as ATMs.
27. Design a questionnaire to gather information about the user interface of a word processor.
28. Describe three situations in which the customer and the end user are one and the same. Describe three in which they are the different people.
29. A program written for personnel use imposes rather less stringent requirements then a product that is also to be used by other people. The latter may require three times as much effort. Discuss
30. Why should software cost models be recalibrated from time to time?
31. Suppose you are managing a project that is getting behind schedule. Possible actions include renegotiating the time schedule, adding people to the project, Renegotiating quality requirements. In which ways can these actions shorten the time schedule? Can you think of other ways to finish the project on time?
32. Suppose one of the team members is dissatisfied with his situation. He has been involved in similar projects for several years now. You have assigned him these jobs because he was performing well. Discus possible actions to prevent this employee from leaving the organization.

33. What is the difference between a macroscopic schedule & a detailed schedule? Is it possible to manage a project if only a macroscopic schedule is developed? Why?
34. Quality & reliability are related concepts, but are fundamentally different in many ways. Discuss. Can a program be correct & still not be reliable. Can a program be correct and still not exhibit good quality.
35. Discuss the reason for a baseline. Assume that you are a manager of a small project. What baselines will you define & how will you control them?
36. Software requirement analysis is unquestionably the most communication intensive step in the software engineering process. Why does the communication path frequently break down?
37. There are frequent severe political repercussions when software requirement analysis begins. Give the reasons. Can the analyst task be conducted so that politics is minimized? Discuss the ideal skills for a system analyst.
39. Team A found 342 errors during the software engineering process prior to release. Team B found 184 errors. What additional measures would have to be made for projects A and B to determine which of the teams eliminated errors more efficiently? What metrics would you propose to help make the determination? What historical data might be useful?
40. You have been asked to build software to support a low cost video editing system. The system accepts videotape as input, stores the video on disk, and then allows the user to do a wide range of edits to the digitized video. The result can then be output to tape. Do a small amount of research on systems of this type, and then make a list of technology risks that you would face as you begin a project to build the video editing system.

41. Suggest practical methods that would enable a manager to monitor compliance with costs & schedules defined in the software project plan.