6.1

“As long as the proposal was properly prepared and approved, following an adequate contract review, there is no justification for redoing all this work. Its resource estimates and schedule can serve as the project’s plan…” You often hear claims like this one.

1. Do you agree with this claim? If not, list your arguments against it
2. Suggest situations where it is clear that the proposal and its materials can serve as development and quality plans
3. Suggest situations where it is clear that the proposal and its materials cannot serve as development and quality plans

6.2

Martin Adams, an experienced project leader at David’s Software Ltd., a medium-size software house, has been appointed project leader for development of an advanced help desk software system for a leading home appliance maintenance service. This is the 12th help desk system developed by his department in the last three years.

The current project is somewhat special with respect to its timetable. The contract with the customer was signed 6 days after submission of the proposal, and the development team is scheduled to begin working at full capacity, with 8 team members, 10 days later. The contract offers a significant early completion bonus for each week below 26 weeks, but determines high late completion penalties for each week after 30 weeks.

In a meeting with his superior, Adams claims that the comprehensive proposal documentation “as is”, which has been thoroughly checked by the contract review team, should serve as the project's development and quality plans. His superior does not agree with him and demands that he immediately prepare comprehensive project and quality plans, according to company procedures.

1. Do you agree with Adams? If yes – list the arguments that support his claim.
2. Do you agree with his superior? If yes – list the arguments that support the superior’s claim.
3. Considering the circumstances of the project, what, in your opinion, should be done in this case.
4. Comparing the circumstances described here to those of the opening anecdote, are there any justifications for different recommendations?

6.3

An experienced project leader has identified 6 SRIs inherent in his project and estimated their Est(dam) and Prob(mat). The results are listed in the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| No. | SRIs | Prob(mat) | Est(dam) $ |
| 1 | Networking at the customer's 23 sites will not be completed on time | 0.2 | 150,000 |
| 2 | Subcontracted modules will fail the acceptance tests | 0.5 | 12,000 |
| 3 | The programming team will be 2-3 programmers short for more than 2 months | 0.7 | 50,000 |
| 4 | The software quality assurance activities will fail to detect major software errors in the complicated discount module; these errors will be discovered by the customer during the guarantee period | 0.05 | 600,000 |
| 5 | The final test of the user’s guide will detect significant errors that will cause a delay of more than 2 weeks in delivery to the customer | 0.3 | 2,500 |
| 6 | The planned server's capacity will be found insufficient in the final system tests | 0.25 | 40,000 |

1. Determine the priorities for these SRIs, using the formula given in Section 6A.3.
2. Can you suggest an alternative method for prioritizing the SRIs?
3. Determine the SRI priorities according to the alternative method. Compare the resulting priority list with that obtained in (1), and discuss the implications of the differences, if any.

6.4

It is said that three of the quality plan's elements must be coordinated with an element of the development plan – the mapping of the development process.

1. Can you identify these elements?
2. Explain the nature of the required coordination

6.5

Quoting from Section 6.3: “Quantitative measures are usually preferred to qualitative measures when choosing quality goals because they provide the developer with more objective assessments of software performance during the development process and system testing. However, one type of goal is not totally equivalent to the other.”

1. How are quantitative goals applied during the development process?
2. Explain in what way quantitative goals enable more objective evaluation of performance when compared with qualitative goals.