SOFTWARE PROJECT MANAGEMENT

Q 1:

The Information Technology Manager of Company XYZ felt that the productivity in the development of application systems in the company was low in comparison to the industry standards.. This was based on a study of some of the large projects executed in the organisation. He found that there were no tools used in the project for any of the project activities. He felt that usage of tools would improve productivity. He approached the Quality Manager to come out with a strategy in this direction. As a Quality Analyst, what will be the tasks you would perform in introducing tools based software project execution in the company.

Ans 1:

Being a quality Analyst, the few things I would do include performing cost analysis benefits for the tool and conducting a meet within employees to get their suggestions.

Depending upon the cost benefit analysis and suggestions, few tools would be shortlisted for next review. This would then be further considered if it can be developed within the company and an estimate would be prepared for that.

All the tools available to do the job would be taken into account. Depending upon how good it is for our case it will be chosen.

Now the tools shortlisted would be checked if it is reliable and free from bugs by pentesting. Also it's history would be considered for its robustness.

Next if we plan to import a tool, current price will be checked and also the increment of it's price would be checked before putting it to use.

Q 2: Your management has asked you to install a software code inspection process for all software products produced in your organisation. Discussions with the development team members indicate that there is a high resistance to code inspections. As a Quality Analyst what approach you will take to deal with the resistance?

Ans 2:

The primary reason for the resistance would be the feeling of being judged by the employees. Before taking any decisions, we would first have a meet to understand the problems faced by the employees and we'll hear the cause of resistance.

Next a form would be passed to let the employees answer that anonymously thus getting unbiased feedback from employees.

This would be further analysed and depending upon the concern, decisions would be taken to approach the inspection process.

If the concern is about being judged, then the employees would be assured that the results of the inspection would be kept private and that it would be only used for the betterment of the coding standards and not anything else.

Once the employees are satisfied, the inspection process would be made to proceed and the results would only be shared with the needed persons only.

Thus the coding standard of both the company and the employee would raise, which may be further useful to him/her in the future too.

Q 3:

Your organisation is involved in development of software application systems for specific customer requirements and implementing them. Your organisation has a well established team to build systems. However, your management found that the cost-revenue ratio is very high and had asked you to take steps to improve. Based on an initial study, you have found that a large number of deviations have been made from the initial requirements into the end products and have not been properly escalated to the management for taking up with the clients for additional charges. As a Quality Manager, how you propose to handle this and to come out with a Change control management plan?

Ans 3:

Requirements Management is an iterative set of activities that help ensure that elicitation, documentation, refinement, and changes of requirements is adequately dealt with during a life cycle of the project.

Given this case, it is seen that there has been a lot of changes from the initially proposed requirements due to increased customer needs. But all these changes have not been properly reported to the management. This is a critical case and this could be approached by making further talks with the customer regarding the increased cost due to increased demands. Care should be taken in properly documenting the increased demands made and the cost occurred for each case.

It is also wise to issue an apology if the customer frets as it is important to have good connections with customers for further projects.

Next, the teams should be made to attend meetings and they must be taught about how they must approach if the customer demands more and how they should report it properly to the management.

Finally caution must be made to make sure these kinds of actions do not happen again.

As per the increased cost, only making the client understand the extra cost spent on that would be helpful in getting the spend capital back.

Q 4:

ABC Company develops custom built application system software for its various clients in Insurance Business. The company management found that in the past, a majority of the projects had cost overruns and schedule slippages. The clients were happy, as they had obtained quality software which had not affected the production. The management feels that the project estimates have not taken into account the risk factors. As a Quality Analyst, what steps you would take to minimise/eliminate cost overruns?

Ans 4:

Cost overrun is an unexpected cost, due to an underestimation during the budgeting process or another reason.

Steps to avoid / minimise cost overruns :-

1. Thorough Project Planning

2. Know Your Vendors

3. Keep to Planned Scope

4. Use a Project Planning Tool

5. Keep Stakeholders Updated

6. Monitor Progress

7. Reassigning Resources

Cost overrun, or any sort of expense that pushes a project past the agreed-upon budget, is something of which a project manager must be constantly vigilant about. This can be avoided by following the above mentioned points.

Q 4:

PQR is a manufacturing organisation with its own in-house Information Services Division to provide IT solutions to meet its business needs. The new I.T Manager who joined recently, found that there are no standards, procedures and guidelines for any of its software project activities. He had approached his Quality Manager to come out with a standard for preparing standards, guidelines and procedures for the ISD. What would be the contents of the standard for a standard?

Ans 5:

A project management plan is a formal document that defines how a project is going to be carried out. It outlines the scope, goals, budget, timeline, and deliverables of a project, and it's essential for keeping a project on track.

Contents of the standard for a standard would include:-

Executive Summary: A short description of the contents of the report

Project Scope & Deliverables: An outline of the boundaries of the project, and a description of how the project will be broken down into measurable deliverables

Project Schedule: A high-level view of project tasks and milestones (Gantt charts are handy for this)

Project Resources: The budget, personnel, and other resources required to meet project goals

Risk and Issue Management Plan: A list of factors that could derail the project and a plan for how issues will be identified, addressed, and controlled

Communication Management Plan: A plan for how team and stakeholder communication will be handled over the course of the project

Also, Plans for Schedule,Budget,Quality of the project.