



Subject Code: IMT-100

Subject Name : Software Project Management

INSTRUCTION

- a. Write answers in your own words as far as possible and refrain from copying from the text books/handouts.
- b. Answers of 1st Set (Part-A), 2nd Set (Part-B), 3rd Set (Part – C) and Set-IV (Case Study) must be sent together.
- c. Mail the answer sheets alongwith the copy of assignments for evaluation & return.
- d. Only hand written assignments shall be accepted.

- A. First Set of Assignments: 5 Questions, each question carries 1.5 marks.
- B. Second Set of Assignments: 5 Questions, each question carries 1.5 marks.
- C. Third Set of Assignments: 5 Questions, each question carries 1.5 marks. Confine your answers to 150 to 200 Words.
- D. Forth Set of Assignments: Two Case Studies : 7.5 Marks. Each case study carries 3.75 marks.

ASSIGNMENTS

FIRST SET OF ASSIGNMENTS

Assignment-I = 5 Marks

PART- A

1. What are the benefits of using a project management approach to develop software?
2. What are the most important factors of the software project management? Explain .
3. Describe “Software project life cycle”.
4. Explain the content of the Process Database(PDB).
5. Define, compare and contrast project management processes and project-oriented processes.

SECOND SET OF ASSIGNMENTS

Assignment-II = 5 Marks

PART- B

1. Enumerate the steps of the bottom-up estimation Approach.
2. Draw a diagram of the Infosys development process.
3. What is Project Scope and how should it be managed
4. What is the meaning of requirement change management? Explain the steps of the change management process.
5. Compare and contrast top-down and bottom-up estimating? Why would you choose one methods over the other?

PART- C

1. Ensuring that the final software is of high quality is one of the prime concerns of a project manager. How is the software quality defined?
2. Explain the steps of Defect prevention planning.
3. What is the difference between group review and one –person review? Explain the steps one-person review at Infosys.
4. Describe some of the tools and techniques that can be used to identify IT project risks.
5. Capacity Maturity Model (CMM) posits five levels of organizational maturity that are a function of the nature of their processes. Describe how processes mature from the lowest to the highest level.

CASE STUDY - I

Note: read the case carefully and answer the questions given at the end. (M.M: 14)

Tom Walters recently accepted a new position at his college as the Director of Information Technology. Tom had been a respected faculty member at the college for the last fifteen years. The college- a small, private college in the Southwest-offered a variety of programs in the liberal arts and professional areas. Enrollment included 1500 full-time traditional students and about 1000 working-adult students attending an evening program. Many instructors supplemented their courses with information on the Internet and course Web sites, but they did not offer any distance-learning programs. The College's niche was serving students in that region who liked the setting of a small liberal arts college. Like most colleges, its use of information technology had grown tremendously in the past five years. There were a few classrooms in the campus with computers for the instructors and students, and a few more with just instructor stations and projections systems. Tom knew that several colleges throughout the country required that all students lease laptops and these colleges incorporated technology components in to most courses. This idea fascinated him. He and two other members of the Information Technology department visited a local college that had required all students to lease laptop for the past three years, and they were very impressed with what they saw and heard. Tom and his staff developed plans to start requiring students to lease laptops at their college the next year.

Tom sent an email to all faculty and staff in September, which briefly described this and other plans. He did not get much response, however, until the February faculty meeting when, as he described some of the details of his plan, the chairs of the History, English, Philosophy, and Economics departments all voiced their opposition to the idea. They eloquently stated that the college was not a technical training school, and that they thought the idea was ludicrous. Members of the Computer Science Department voiced their concern that all of their students already had state-of-the art desktop computers and would not want to pay a mandatory fee to lease less-powerful laptops. The director of the adult education

program expressed her concern that many adult education students would balk at an increase in fees. Tom was in shock to hear his colleagues' responses, especially after he and his staff had spent a lot of time planning details of how to implement laptops at their campus. Now what should he do? After several people voiced concerns about the laptop idea at the faculty meeting, the president of the college directed that a committee be formed to formally review the concept of requiring students to have laptops in the near future. Because the college was dealing with several other important enrollment-related issues, the president named the vice president of enrollment to head the committee. Other people soon volunteered or were assigned to the committee, including Tom Walters as head of Information Technology, the director of the adult education program, the chair of the Computer Science department, and the chair of the History department. The president also insisted that the committee include at least two members of the student body. The president knew everyone was busy, and he questioned whether the laptop idea was a high-priority issue for the college. He directed the committee to present a proposal at the next month's faculty meeting, either to recommend the creation of a formal project team (of which these committee members would commit to be a part) to fully investigate requiring laptops, or to recommend terminating the concept. At the next faculty meeting, few people were surprised to hear the recommendation to terminate the concept. Tom Walters learned that he had to pay much more attention to the needs of the entire college before proceeding with detailed information technology plans.

1. What is the socio-technical approach to systems development? Based on the above description explain the approach.
2. How do sharing experiences in the form of lessons learned lead to best practices in managing and developing systems?
3. What should be the best approach of the above project to be initiated and completed successfully?

CASE STUDY-II

Juan Gonzales was a systems analyst and network specialist for a major city's waterworks departments in Mexico. He enjoyed helping the city develop its infrastructure. His next career objective was to become a project manager so he could have more influence. One of his colleagues invited him to attend an important project review meeting for large government projects, including the Surveyor Pro project, in which Juan was most interested. The Surveyor Pro project was a concept for developing a sophisticated information system that included expert systems, object-oriented databases, and wireless communications. The system would provide instant, graphical information to government surveyors to help them do their jobs. For example after the surveyor touches a map on the screen of a handheld device the system would prompt him or her for the type of information needed for that area. This system would help in planning and implementing many projects from laying fiber optic cable to laying water lines. Juan was very surprised however in the majority of the meeting was spent discussing past related issues. The government officials were reviewing many existing projects to evaluate their performance to date and the potential impact on their budgets before discussing the funding for any new projects. Juan didn't

understand many of the terms and charts and the charts presenter's were showing. What was this earned value term they kept referring to. How were they estimating what it would cost to complete projects or how long it would take? Juan thought he would learn more about the new technologies the surveyor Pro-project would use but he discovered that the cost estimate and projected benefits were of most interest to government officials at the meeting it also seemed as if a lot of efforts would go towards detail financial studies before any technical work could even start. Juan wish he had taken some accounting and finance courses so he could understand the acronyms and concepts people were discussing, Although Juan had degree in electrical engineering. He had no formal education in finance if Juan could understand information systems and networks he was confident that he could understand financial issues on projects too.

He jotted down questions to discuss with his colleagues after the meeting.

1. Discuss why IT professional should learn cost management and its impact on Projects.
2. Suggest few costing models Juan should learn to understand the financial aspects of a project.
3. What was Juan's problem? What kind of action plan you will suggest to him.