DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SUBJECT: SOFTWARE PROJECT MANAGEMENT

Question Bank 2 Marks and 10 Marks:

Unit: 1:

1.Explain the Software maturity Framework.

2. List and explain the Principles of Software Process Change.

3. Elaborate the Software Process Assessment.

4. Discuss the Capability Maturity Model (CMM).

5. Explain the terms CMMI, PCMM, PSP, TSP

6. Elaborate the pragmatic software cost evolution in detail

7. Draw and explain waterfall model in practice

8. Give an overview of the artifact sets. Also, explain the artifacts in management set

9. What are the top ten risks in conventional process of software development? Explain.

10. Discuss the results of conventional software project design reviews

Unit 2:

1) Explain pragmatic software cost evolution in detail
2) Explain waterfall model in practice
3) Discuss the conventional software management performance
4) What are the top ten risks in conventional process of software development? Explain.
5) Discuss the results of conventional software project design reviews.
6) Explain the waterfall model. What are the necessary improvements for this model?
7) What are the five components of software cost models?
8) Explain water fall model with late design breakage and late risk resolution

9) Give an overview of the artifact sets. Also, explain the artifacts in management set.

10) How an operational artifact of a management set differs from planning artifacts? Explain

Unit 3:

1. Define the terms ‘model’ and ‘view’. What are the three different aspects of software architecture form management’s perspective?
2. Explain the significance of software architecture in modern software development process.
3. What does each of the views (design, process, component, deployment) address in the software architecture? Explain with an example.
4. What are the seven workflows in the life cycle?
5. What levels of activity takes place in these workflows during each of the four phases (inception, elaboration, construction and transition).
6. Define iteration. Discuss the sequence of activities in an iteration workflow.
7. Bring out the differences between iterations and increments along with suitable diagrams.
8. How are the checkpoints or synchronization points decided? Explain with an example.
9. Discuss in detail about the minor milestones in the life cycle of iteration.
10. Define periodic status assessment. What is the need of status assessment in software life cycle? Also discuss the default content of periodic status assessments.

Unit 4:

1. Explain the main features of the default line-of-business organization.

2. What are the four component teams in a default line-of-business organization and their responsibility?

3. Discuss the four component teams in a default project organization and their responsibility.

4. How does the emphasis in the four teams evolve over the course of the entire project?

5. Discuss the reason for looking at organizations from project as well as line-of-business perspective.

6. What are the steps in identifying project roles? Name any five project roles and the skills needed for them.

7. Name metrics for reliability. SW cost, effort, SW complexity with examples.

8. Explain the seven-core metrics.

9. Discuss the evolution of software project team over the software life cycle.

10. Explain the three levels of process along with their automation support

Unit 5:

1. What are the effects of architectural risk on process discriminators?

2. Distinguish between small-scale projects and large-scale projects. Define the SEI-CMM maturity levels of organizations. How do processes differ because of process flexibility and process maturity?

4. Explin the Best Practices associated with software Management.

5. Discuss the Next-Generation software Economics.

6. Give a brief note on Modern Process Transitions.

7. Elaborate the Modern Project Profiles.

8. What are modern project profiles? Explain.

9. Explain the trends in improving software economics.

10. Explain the Modern Project Profiles Next generation Software economics.

2 Marks:

1. What are the five basic parameters of software economics?
2. How to improve team effectiveness?
3. Enumerate the top five principles of modern process.
4. Define artifact sets.
5. Elucidate the importance of inception phase.
6. Draw the structure of work breakdown.
7. What is software change order?
8. List the seven core metrics which are used in all software projects.
9. What is pragmatic software metrics?
10. Mention the role of project manager.
11. What is requirement analysis?
12. Write the relationship between the parameters in software cost model.
13. What is meant by team effectiveness?
14. What is meant by risk mitigation?
15. What is the necessity of artifact sets?
16. What are checkpoints of the process?
17. Define earned value analysis.
18. Define project environment.
19. What is meant by configuration baseline?
20. Define stakeholder environment.

21. What is COCOMO model?
22. What is 80/20 principle?
23. What is meant by team effectiveness?
24. What is meant by risk assessment?
25. Write a short note on artifact sets.
26. What are minor milestones of a process?
27. Define backup plan.
28. Define peer inspections.
29. What is meant by configuration baseline?
30. What are included in architecture baselines?
31. What are the two basic steps to build a program? Explain.
32. Write Boehm's quotation "walkthroughs catches 60% of the errors".
33. List the principle of top talent in team effectiveness.
34. Analyze the Davis principle "Use different languages for different phases".
35. What are the two essential activities of transition phase? List.
36. List the artifacts of the deployment set.
37. List the artifacts of requirement workflow.
38. Define minor milestone.
39. Define breakage and modularity.
40. Write process maturity level.

10 Marks :.

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48. Discuss the conventional software management performance