DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SYLLABUS

Sub.Code   : CS1021   **Branch / Year / Sem**   : B.E CSE/IV/VIII

Sub.Name   : Software Project Management **Batch**   : 2009-2013

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UNIT – I FUNDAMENTALS

PART –A

1. What is conventional software management?

2. What is conventional software economics?

3. What are the three differing perspectives of analysis?

4. What is the source of conventional model?

5. What are basic steps involved in building a program?

6. Draw the large scale system approach in water fall model.

7. What are the five improvements available in water fall model?

8. What are the sequential activities in water fall model?

9. Draw the curve for a progress profile of a conventional software project?

10. What are the events present between contractors and customers?

11. What are the basic parameters of the software cost model?

12. How software cost is estimated?

13. What is ROI?

14. What are three generations of software development?

15. How ROI can be achieved across a line of business?

16. Write some popular cost estimation models.

17. Draw the block diagram of a predominant cost estimation process.

18. What are important trends in improving software economics?

19. Write some higher order languages.

20. List the automatic code generators.

21. Write some reuse of commercial components.

22. Mention any three process available in improving software processes.

23 Define software project management.

24 Why software project management is more important?

25   Define project?

26   What is Contract management?

27   List out the activities covered by SPM?

28   What is management?

29   List out some problems with software projects?

30   How will you measures of effectiveness?

31   Define stake holders?

32   What are the different types of stake holders are avail?

33   What are the objectives of step wise project planning?

34   Draw the diagram of overview of step wise project planning?

35   List out some document used for documentation?

36   At what level the high level risks are taken place?

37   Difference between PFD vs PBS.

PART-B

1. Explain about conventional software management. (16)

2. Explain about the evolution of software economics. (16)

3. Explain about the Improving software economics. (16)

4. Differentiate conventional versus modern software project management. (16)

5. Explain about reducing software product size. (16)

6. a. Explain about improving software process. (08)

   b. Explain about improving team effectiveness. (08)

7. What are the activities covered by software project management?

8 . Draw the outline table of step wise project planning?

9   Draw the overview diagram of step wise project planning?

10. Explain the various steps involved in step wise project planning?

11. Explain about Contact management

UNIT – II

SOFTWARE MANAGEMENT PROCESS FRAMEWORK

PART- A

1. Write the different phases available in life cycle phase.

2. What are iterative software management process?

3. List the two stage of life cycle.

4. Write two primary objectives of Inception phase.

5. Write two essential activities of Elaboration phase.

6. Write any two primary evaluation criteria of Construction phase.

7. List the activities of Transition phase.

8. What are the five types of artifact sets.

9. Differential implementation set versus deployment set.

10. Write about vision document.

11. Write three different aspect of an architecture.

12. Define Architecture framework.

13. Name the different UML diagrams.

14. Write seven major workflows.

15. What is management workflow?

16. What are the 3 sequences of project checkpoints used to synchronize the stakeholder
     expectations through out the life cycle?

17. Define software development plan.

18. What is milestone?

19. Write the goals of project management.

PART –B

1. Explain about Lifecycle Phases. (16)

2. Explain about the artifacts of the process. (16)

3. Explain about the model based software architecture. (16)

4. Explain in detail about the workflows of the process. (16)

5. Explain in detail about the checkpoints of the process. (16)

6. a. Explain about inception and elaboration phase. (08)

b. Explain about construction and transition phase. (08)

7. Explain in detail about engineering sets. (16)

UNIT – III

SOFTWARE MANAGEMENT DISCIPLINES

PART A

1. Define Work breakdown structure.
2. What are the three fundamental flaws that suffer the conventional work breakdown structure?
3. Write the default budgets for work breakdown structure.
4. Write the default distribution of effort and schedule for construction phase.
5. What are the four types of iterations?
6. By what the project teams are motivated?
7. What is the responsibility of the project review authority?
8. Draw the block diagram for project organizations.
9. What are the activities are present in software management team?
10. What are all the teams involved in project organization?
11. Write about software development team activities.
12. What are the three environments involved in project environment?
13. What is round trip engineering?
14. Define Software Change Order.
15. What are the seven core metrics used in software project?
16. Define Change traffic.
17. Define Breakage and Modularity.
18. Define Stability.
19. Define Rework and Adaptability.
20. Define MTBF and Maturity.
21. Write two workflow priorities between small and large scale projects.
22. What are the three project activities that are needed for WBS?

PART B

1. Explain in detail about iterative process planning. (16)
2. Explain about the Project Organization and responsibilities. (16)
3. Explain in detail about Process automation. (16)
4. a. Explain about conventional work breakdown structure. (08)
b. Explain about the planning guidelines. (08)
5. a. Explain the cost and schedule estimating process. (08)
b. Explain the iteration planning process. (08)
6. a. Explain about pragmatic planning. (08)
b. Explain about the roles in a software line of business organization (08)

7. Explain in detail about project organizations. (16)

8. a. Explain about round trip engineering. (08)

b. Explain about software change orders. (08)

9. Explain in detail about management indicators. (16)

10. a. Explain in detail about Quality indicators. (08)

b. Explain about pragmatic software metrics. (08)

11. Explain about tailoring the process framework. (16)

UNIT – IV

MANAGED AND OPTIMIZED PROCESS

PART- A

1. What are the principles of effective data gathering?

2. What are the objectives of data gathering?

3. What are the steps in data gathering process?

4. Write some data characteristics of software measures.

5. How software defects are categorized?

6. What are the steps involved in data analysis?

7. What are basic principles of software quality management?

8. How the formulae is calculated for availability?

9. What are the classes of quality measures?

10. Write the categories of software defects.

11. What are the principles used in software defect prevention?

12. What are steps involved in software defect prevention?

PART- B

1. Explain about the principles of data gathering. (16)

2. Explain about software measures. (16)

3. Explain in detail about data analysis. (16)

4. a. Explain about quality motivation. (08)

b. Explain about inspection data analysis (08)

5. Explain about measurement criteria. (16)

6. Explain about estimating software quality. (16)

7. Explain about quality goals and quality plans. (16)

8. Explain about principles of software defect prevention. (16)

9. a. Write about defect analysis report. (08)

b. Explain about defect prevention process. (08)

UNIT – V

CASE STUDIES

PART- A

1 Write the equation for COCOMO Model.

2. Write the basic effort and schedule estimating formulas.

3. Write some effort adjustment factor.

4. What is the important characteristics of the software?

5. Define software quality.

6. Define SLOC.

7. What is LOC?

8. Define modularity

9. Define Adaptability

10. Define maturity.

11. Define maintainability.

12. What is quality of maintenance (QM)?

13. Expand CCPDS-R.

PART –B

1. a. Explain about change metrics. (08)

b. Discuss about basic effort and schedule estimating formulas. (08)

2. Explain in detail about the COCOMO cost estimation model. (16)

3. Explain about the COCOMO II Model. (16)

4. Explain in detail about metrics derivation. (16)

5. a. Explain about Full Scale Development project organization and
   Responsibilities. (08)

b. Explain about CCPDS-R life cycle overview. (08)