IV B.Tech I Semester Regular Examinations, November 2008
SOFTWARE PROJECT MANAGEMENT
(Common to Computer Science & Engineering and Information Technology)

Time: 3 hours Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Describe the methods used in managing the development of large scale software systems? [16]

2. Summarize the characteristics of a successful object oriented project? [16]

3. Describe the two stages of the life cycle to active economies of scale and higher returns on investment. [16]

4. What is the typical build sequence associated with a layered approach explain?[16]

5. (a) How do immovable milestones and synchronization points differ?
(b) Develop formats for recording meeting notes and for email status reports. Justify your format for each by considering how much time will be needed to use these formats and how these notes and reports will be archived. [8+8]

6. (a) What are the main features of the default organization of project organizations?
(b) Define stakeholder. Explain stakeholder environment. [6+10]

7. (a) What are the central management issues of complex software? Explain.
(b) Write the default pattern of life-cycle metrics evolution. [8+8]

8. (a) Explain modern software economics.
(b) Explain CCPDS-R software artifacts. [8+8]

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1. Describe the improvements done to the basic waterfall process that would eliminate most of the development risks? [16]

2. Are peer reviews secondary or primary? Justify? [16]

3. Describe the two stages of the life cycle to active economies of scale and higher returns on investment. [16]

4. State the heuristics that describe objectively an architecture baseline. [16]

5. (a) Explain the process of critical path method on the PERT chart shown in figure 5a with requirements, coding and system test taking 4 weeks each and others taking 2 weeks each.

(b) Write short notes on the following:
   i. Earned value analysis
   ii. Backup plan
   iii. GANTT chart. [10+6]

6. (a) With the help of a neat diagram, explain the software team evolution over the life cycle.

(b) What are the states of SCO? Explain with an example. [8+8]

7. (a) Define change traffic, stability, breakage, modularity, rework and adaptability.
(b) Explain stakeholder cohesion. [12+4]

8. (a) Explain denouement.
   (b) Explain DOD-STD-2167A artifacts. [8+8]

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1. Describe the various objectives used for the measurement of software size? [16]

2. Discuss the key practices that improve the overall software quality? [16]

3. Provide the default agendas for the life cycle architecture milestone? [16]

4. Explain an organized and abstracted view of the architecture into the design models. [16]

5. (a) Which type of scheduling, backward or forward, is more effective for creating backup plans? Are there circumstances where forward is better than backward and vice versa?

   (b) What must be done for each task on the schedule? [10+6]

6. (a) Give two reasons why the system version in an N-version system may fail in a similar way.

   (b) What are the three levels of process?

   (c) Discuss about the prototyping environment. [6+6+4]

7. (a) Define measure, metric and indicator.

   (b) Explain life-cycle expectations.

   (c) Write the process discriminators that result from differences in domain experience. [4+8+4]

8. (a) Explain about next-generation project performance.

   (b) Explain IPDR demonstration scope. [8+8]

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1. Discuss in detail the three important analyses done on the state of the software engineering industry? [16]

2. Summarize the characteristics of a successful object oriented project? [16]

3. Describe the primary objectives, essential activities and primary evaluation criteria of the elaboration phase? [16]

4. State the heuristics that describe objectively an architecture baseline. [16]

5. (a) Which milestone occurs at the end of the inception phase? Explain.
   (b) Write the default content of status assessment reviews.
   (c) Write the planning sequence of backward-looking. [4+8+4]

   (b) What are the stakeholder environments? Explain. [8+8]

7. (a) What are management and quality indicators?
   (b) Explain contention of process discriminants. [8+8]

8. Explain the following:
   (a) Examples of the fundamental metrics classes
   (b) Priorities for tailoring the process framework
   (c) Process maturity
   (d) Evolution requirements. [4+4+4+4]

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