Code No: RR420502 **Set No. 1**

IV B.Tech II Semester Regular Examinations, Apr/May 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

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1. (a) What are the five components of software cost models?
   (b) What are the components of a good cost estimate, in practice? [8+8]
2. (a) Why does software not give as much returns on investment as other industries?
   (b) What are the ways of achieving better economics in Software? [8+8]
3. (a) What are the essential activities in construction and transition phases?
   (b) How do you evaluate the completion of each of the four phases in SW lifecycle? [6+10]
4. What does each of the views (design, process, component, deployment) address in the software architecture? Explain with an example. [16]
5. (a) What are the disadvantages of traditional work break down structures?
   (b) How should the evolutionary WBS be structured? [8+8]
6. (a) What are the sources of change? Why should change be made in a controlled way?
   (b) Define a configuration baseline. [10+6]
7. (a) What is the need for metrics? What do you mean by indicators?
   (b) List the seven core metrics, their purpose and perspectives. [6+10]
8. What were metrics collected in CCPDS-R? What is the purpose of each metric? [16]

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Code No: RR420502 **Set No. 2**

IV B.Tech II Semester Regular Examinations, Apr/May 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

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1. (a) What are the five components of software cost models?
   (b) What are the components of a good cost estimate, in practice? [8+8]

2. (a) What are the relative advantages and disadvantages of custom SW development and development using commercial components?
   (b) Explain the process of buy/build decision with following example. Given the projected costs and probability (in parenthesis). Shown in figure 2 [8+8]

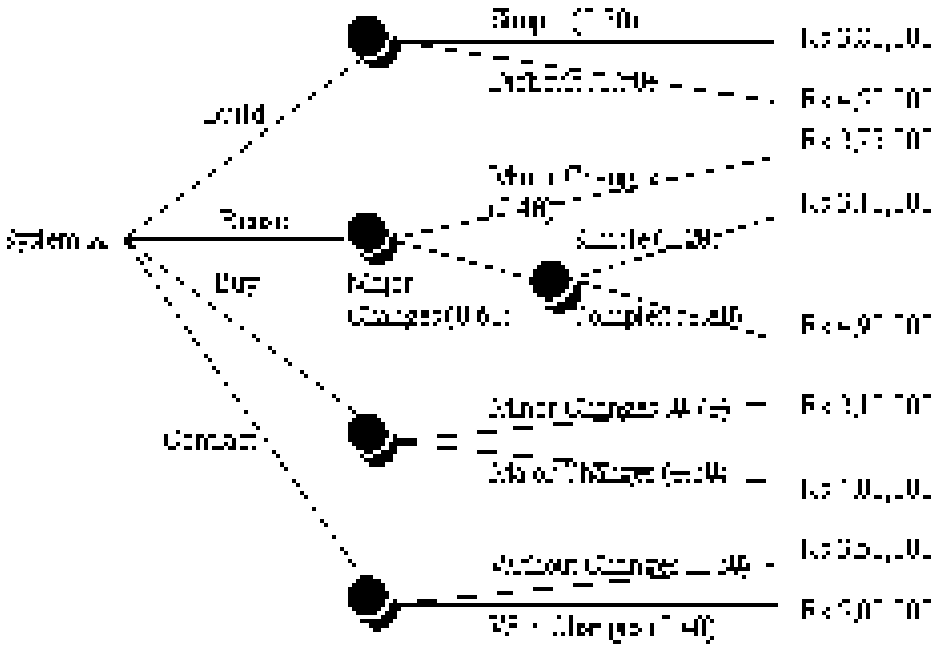


Figure 2

3. (a) What are the primary objectives of the four phases of SW lifecycle?
   (b) What are the essential activities in Inception and elaboration phases? [8+8]

4. (a) What are the seven workflows in the lifecycle?
   (b) What levels of activity take place in these workflows during each of the four phases (Inception, elaboration, construction and transition) [8+8]

5. (a) What are the steps in identifying project roles? Name any five 5 project roles and the skills needed for them.
   (b) What are the benefits of matching people to roles? [10+6]
6. (a) What are the sources of change? Why should change be made in a controlled way?
   (b) Define a configuration baseline. [10+6]
7. Define the SEI-CMM maturity levels of organizations. How do processes differ because of process flexibility and process maturity? [16]
8. (a) What were the core metrics collected by CCPDS-R? What is the purpose of each metric?
   (b) How were they analyzed? [8+8]

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Code No: RR420502 **Set No. 3**

IV B.Tech II Semester Regular Examinations, Apr/May 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

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1. (a) Explain the method of COCOMO estimation with the following example. Give the advantages and disadvantages of this method.
A project manager estimates the number of adjusted function points for a project as 1000. The language chosen for implementation maps to about 33.2 LOC per function point. What is the duration of the project and how many persons will it take? What will be the team structure you choose if this is a project involving latest technology with complex functionality? Take minimum time in months, t_{min}= $8.14[LOC/P]^{.43}$ in months, where B = .16 for 5-15 KLOC projects and B =.28for > 30KLOC. Effort in person months E = 180 Bt^3 (where t is in years). Take P = 12,000.
   (b) Why is the effort (in person-months) not simple a product of duration and number of persons needed? [10+6]

2. (a) What are the key practices that improve the overall SW quality?
   (b) How can good teams be built? How can you continue to have a team that works effectively and efficiently? [8+8]

3. (a) What are the essential activities in construction and transition phases?
   (b) How do you evaluate the completion of each of the four phases in SW lifecycle? [6+10]

4. (a) What are the seven workflows in the lifecycle?
   (b) What levels of activity take place in these workflows during each of the four phases (Inception, elaboration, construction and transition) [8+8]

5. (a) What are the steps in identifying project roles? Name any five 5 project roles and the skills needed for them.
   (b) What are the benefits of matching people to roles? [10+6]

6. (a) What are the sources of change? Why should change be made in a controlled way?
   (b) Define a configuration baseline. [10+6]

7. (a) What is the need for metrics? What do you mean by indicators?
   (b) List the seven core metrics, their purpose and perspectives. [6+10]

8. (a) What were the core metrics collected by CCPDS-R? What is the purpose of each metric?
   (b) How were they analyzed? [8+8]

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Code No: RR420502 **Set No. 4**

IV B.Tech II Semester Regular Examinations, Apr/May 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

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1. (a) Explain the method of COCOMO estimation with the following example. Give the advantages and disadvantages of this method.
A project manager estimates the number of adjusted function points for a project as 1000. The language chosen for implementation maps to about 33.2 LOC per function point. What is the duration of the project and how many persons will it take? What will be the team structure you choose if this is a project involving latest technology with complex functionality? Take minimum time in months, t_{min}= $8.14[LOC/P]^{.43}$ in months, where B = .16 for 5-15 KLOC projects and B =.28for > 30KLOC. Effort in person months E = 180 Bt^3 (where t is in years). Take P = 12,000.
   (b) Why is the effort (in person-months) not simple a product of duration and number of persons needed? [10+6]

2. (a) How should the team be balanced in different dimensions of human skills?
   (b) What kind of special skills are required for a SW project manager? Explain with an example how these are useful. [8+8]

3. (a) What are the primary objectives of the four phases of SW lifecycle?
   (b) What are the essential activities in Inception and elaboration phases? [8+8]

4. (a) What are the seven workflows in the lifecycle?
   (b) What levels of activity take place in these workflows during each of the four phases (Inception, elaboration, construction and transition) [8+8]

5. (a) What are the disadvantages of traditional work break down structures?
   (b) How should the evolutionary WBS be structured? [8+8]

6. (a) What are the four component teams in a default Project organization and their responsibility?
   (b) How does the emphasis in the four teams evolve over the course of the entire project? [8+8]

7. (a) Why are the metrics divided into management and quality indicators? Name the core metrics under each category.
   (b) Identify examples of each of the seven core metrics and state their purpose. [8+8]

8. What were metrics collected in CCPDS-R? What is the purpose of each metric? [16]

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