Roll No. | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(CSE) (2011 Onwards Elective-II) (Sem.–7,8)

SOFTWARE PROJECT MANAGEMENT

Subject Code : BTCS-907

Paper ID : [A2989]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. **Discuss the following in brief :**

   a) What factors should be taken into account when selecting staff to work on a software development project?

   b) Describe the difference between risk components and risk drivers.

   c) Explain CMMI model.

   d) Define ISO 9000 quality standard.

   e) Can a program be correct and still not exhibit good quality? Explain.

   f) What is the purpose of using Putnam's equation? Explain.

   g) Explain Monte Carlo simulation technique.

   h) Explain the role of change control authority in change control process.

   i) Explain the difference between error and a defect.

   j) List the types of contracts.

SECTION-B

2. Can a program be correct and still not reliable? Explain.

3. You have been given the responsibility for improving the quality of software across your organization. What is the first thing that you should do? What's next?

4. What are the four elements that exist when an effective SCM system is implemented? Discuss each briefly.

5. Is there ever a case where a software project milestone is not tied to a review? If so, provide one or more examples.

6. What are the steps to identifying roles? What are the steps to matching people to roles?

SECTION-C

7. a. What options do we have when defining the structure of a software team? Explain in detail.

   b. Use the COCOMO II model to estimate the effort required to build software for a simple ATM that produces 12 screens, 10 reports, and will require approximately 80 software components. Assume average complexity and average developer/environment maturity. Use the application composition model with object points.

8. As a training manager, you are responsible for the initial programming language training of a new graduate intake to your company whose business is the development of defense aerospace systems. The principal programming language used is Ada, which was designed for defense systems programming. The trainees may be computer science graduates, engineers or physical scientists. Some but not all of the trainees have previous programming experience; none have previous experience in Ada. Explain how you would structure the programming training for this group of graduates.

9. Describe five software application areas in which software safety and hazard analysis would be a major concern.