TCS-042

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID: 0670 Roll No.

#### B.Tech.

(SEM VIII) EVEN SEMESTER THEORY EXAMINATION, 2009-2010

## SOFTWARE PROJECT MANAGEMENT

Time: 3 Hours Total Marks: 100

Note: Attempt ALL questions.

1. Answer any two questions :

(2x10=20)

- (a) Explain Software Project Planning, giving its various objective. Also discuss the structure of a Software Project Management Plan (SPMP) in detail.
- (b) (i) Explain why the intangibility of software system possess special problems for software project management?
  - (ii) Discuss the various responsibilities of a software project manager.
- (c) What do you mean by the software project estimation? Give various estimation models. Describe any one of the estimation model using suitable examples.

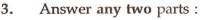
### 2. Answer any two parts:

(2x10=20)

(a) What do you understand by the Activity network and the Gantt chart? Draw the Activity network and Gantt chart representations for the following table that indicates the various tasks involved in completing a software project, the corresponding activities, and the estimated effort for each task in person-months:

Tasks	Activity	Efforts in person-months
T1	Requirements specification	1
T2	Design	2
T3	Code actuator interface module	2
T4	Code sensor interface module	5
T5	Code user interface part	3
T6	Code control processing part	1
T7	Integrate and test	6
T8	Write user manual	1

- (b) What is the difference between a macroscopic schedule and a detailed schedule? Is it possible to manage a project if only a macroscopic schedule is developed? Discuss with suitable example.
- (c) Write short notes on the following:
  - (i) Work Breakdown Structure (WBS)
  - (ii) CPM



(2x10=20)

(a) What do you mean by earned value analysis and earned value indicators? Discuss various earned value indicators with examples.

- (b) (i) Discuss error tracking with examples.

  Does it affect the SPM schedule?

  Explain.
  - (ii) Discuss the significance of software project reviews.
- (c) Explain the following with examples:
  - (i) Code review
  - (ii) Project monitoring and control

## 4. Answer any two parts:

(2x10=20)

- (a) Describe the difference between verification and validation. Do both make use of test case design methods and testing strategies? Explain with suitable examples.
- (b) (i) Why is a highly coupled module difficult to unit test? Explain.
  - (ii) How can project scheduling affect integration testing? Discuss.
- (c) Explain the following with examples:
  - (i) Software quality attributes
  - (ii) SEI-CMM

# 5. Answer any two parts:

(2x10=20)

(a) What is the difference between a software configuration management audit and a formal technical review? Can their functions be folded into one review? What are the pros and cons?

- (b) Differentiate between the following with example :
  - (i) Known risks and predictable risks.
  - (ii) Change control and version control.
- (c) Write short notes on the following:
  - (i) CASE Tools
  - (ii) Risk Monitoring

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