| (Following Paper ID and Roll No. to be filled in your Answer Book) | | | | | | | | |
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| PAPER ID: 2526 | Roll No. | | | | | | | |

B. Tech.

(SEM. VI) THEORY EXAMINATION 2011-12 SOFTWARE PROJECT MANAGEMENT

Time: 3 Hours

Total Marks: 100

Note: -- Attempt all questions.

1. Answer any two parts:

 $(10 \times 2 = 20)$

- (a) Define software project management. Describe the software project management cycle in detail with suitable diagrams.
- (b) What do you mean by function points (FPs)? Why FPs are becoming acceptable in industry? Also compute the function point value for a project with the following information domain characteristics:

Number of user inputs = 30

Number of user outputs = 42

Number of user enquiries = 08

Number of files = 07

Number of external interfaces = 06

Assume that all complexity adjustments values are moderate.

- (c) (i) Write short note on the COCOMO Model.
 - (ii) How planning for a software project is different from planning for any other engineering project?
- 2. Answer any two parts :— $(10\times2=20)$
 - (a) Describe the following with example and also give the significance of each:
 - (i) PERT
 - (ii) CPM.
 - (b) (i) What is the difference between the milestone chart and Gantt chart? Discuss.
 - (ii) Discuss various steps to select software project team.
 - (c) (i) What is motivation? Describe some models of motivation.
 - (ii) How to build a project schedule? Explain.
- 3. Answer any two parts :— $(10\times2=20)$
 - (a) What is meant by earned value analysis and earned value indicators? What is the significance of these?

 Discuss various earned value indicators with examples.
 - (b) (i) What do you mean by error tracking? Explain with examples. Does it affect the SPM schedule?
 - (ii) Write a short note on pair programming.
 - (c) What do you mean by the software reviews? How software review is carried out? Discuss any two software review methods.

- 4. Answer any *two* parts :— (10×2=20)
 - (a) What is the difference between white box and black box testing? Is determining test cases easier for black box testing or white box testing? Discuss with some example. Is it correct to claim that if white box testing is done properly, it will achieve close to 100% path coverage? Explain.
 - (b) (i) Is unit testing possible or even desirable in all circumstances? Justify your answer with suitable example.
 - (ii) Differentiate between alpha testing and beta testing.
 - (c) What do you mean by software quality? Explain. Discuss various software quality metrics and indicators.
- 5. Answer any *two* parts :— (10×2=20)
 - (a) (i) Discuss the role of change request management in software project management.
 - (ii) What do you mean by risk? Is it always necessary to identify the risks in a software project? Explain.
 - (b) Describe the following with example:
 - (i) Baselines
 - (ii) Risk management process.
 - (c) Write short notes on the following:—
 - (i) Role of SCM in SPM
 - (ii) CASE Tools.