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Question Paper Code: 92032

M.E. DEGREE EXAMINATION, DECEMBER 2013.

Elective

Computer Science and Engineering

01PCS513 - PRINCIPLES OF SOFTWARE PROJECT MANAGEMENT

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. What is a software product? Is it same as software project?
2. Why product development needs to be in life cycle format?
3. What are process models and state their usages?
4. What are the activities of CMM model?
5. State the metrics used for SQA.
6. What are the risks involved in SPM?
7. When do you say that a project is 'ON'?
8. State the steps involved in project tracking.
9. What are the issues with respect to people involved in SPM? How this can be solved?
10. State the constraints for project manager in case of over schedule or over cost of a project.

PART - B (5 x 14 = 70 Marks)

11. (a) Explain the principles and execution of SPM activities. Are all of them required to be followed, for any size of software project? Justify with respect to overhead.

(14)

Or

- (b) Explain the activities of each phase of the life cycle for a software project. How each activity can be tuned so that overall retrace is not required before the project is delivered? (14)

12. (a) Describe the standards and guidelines in ISO 9001 with reference to software project management. Are they easily achievable and incorporable in the project? State the effective adherence to the standards. (14)

Or

- (b) Explain the CMM model and people CMM with relevance to the SPM. If these activities are documented, state who are the beneficiaries. Discuss. (14)

13. (a) Explain the various umbrella activities during project development. How are the progress in each activity is measured and monitored? (14)

Or

- (b) Describe SQA plans and the issues related in implementation. Which of the following is primarily important and significant

(i) To release the product as scheduled without much concern about SQA. (8)

(ii) The project release may be delayed but strictly adhere SQA guidelines. Justify. (6)

14. (a) List various milestones that can be fixed from the project initiation till project wind up. Are these milestones reached? How are they assessed? Discuss the procedures. (14)

Or

- (b) How project data base is created? What are the important contents in the data base? Who are to certify or authenticate the contents? Who are the stakeholders for such data bases? Describe with respect to SPM context. (14)

15. (a) Explain the engineering and managerial issues during various phases of project development? (14)

Or

- (b) Describe the issues and concerns for SPM with respect to product developed for India and its geographical distribution. How the quality is ensured at any point of time for the product? (14)

PART - C (1 x 10 = 10 Marks)

16. (a) In a software organization, a project with schedule constraint is proposed to be developed. There are 40 engineers working in the company, along with a project manager. These engineers are equally competent in all activities in life cycle phases. There is yet another project is going on and the people are involved in that project also, which is nearly 60 % completed. In this circumstances, how the project manager can distribute the man power so that both the projects can be released as per schedule, without any deviation in the SRS. Discuss the strategy, the project manager can adopt for at least two scenarios. (10)

Or

- (b) An SRS for a software project is prepared and got approved after several reviews. The SRS if it goes through all the phases of life cycle, systematically it will take 5000 X currencies cost and the project will be released in 6 months. The same project if it undergoes rapidly, it will be ready for release in 3 months, with 2800 X currencies, cost involved. As a Project manager, what scheme of the above, will be recommended and follow up, with proper justification. Illustrate which scheme will be of high SQA point and Why? (10)
