

16/05/19
B.E/ B.Tech (FT / ~~IT~~) END SEMESTER EXAMINATIONS - APRIL / MAY 2019

B.TECH INFORMATION TECHNOLOGY

SEMESTER

IT8017 SOFTWARE PROJECT MANAGEMENT

(Regulation 2012)



Time: Three Hours

Maximum: 100 marks

Answer ALL Questions

PART A - (10x2=20 Marks)

1. Give the formula that shows the relationship among the parameters (namely, effort, personnel, environment, quality, size and process) and the estimated cost?
2. Differentiate software projects from other projects and state why we need to study Software Project Management?
3. What are to be included in an architectural baseline?
4. Explain round-trip engineering?
5. How do you tailor the software process model to the project requirements?
6. How iterative process planning is beneficial?
7. How quality reviews are used for managing and optimizing processes?
8. Mention the strategies for preventing defects in software projects?
9. Bring out the difference between measure(s) and metric(s)?
10. What are the advantages of COCOMO estimating model?

PART B - (5x16 = 80 Marks)

11. (i) Illustrate with a suitable example the COCOMO estimation and explain the salient features of COCOMO II estimation model? (10)
- (ii) What are metrics? What is the significance for metrics in software project management? Explain the change metrics and highlight its significance? (6)

12. (a) (i) Elucidate with a neat schematic representation, the three generations of software development and software economics leading to the target objective? (8)

(ii) How can you reduce the size of a software product specifying the languages, the object-oriented methods and visual modeling and the reuse? (8)

(OR)

(b) (i) Explain how peer reviews are valuable as secondary mechanisms and how they contribute to a quality system? (8)

(ii) What are the three levels of software processes (and their attributes)? How will you improve the software process? (8)

13. (a) Elaborate on the model based software architecture from a management and technical perspective? (16)

(OR)

(b) What is a milestone? Give an account on the general status of plans requirements and products across the major milestones? (16)

14. (a) (i) Map the roles and responsibilities to a default line-of-business organization and mention the main features of the default organization? (8)

(ii) What is a Configuration Baseline? Explain the Configuration Baseline with a appropriate example? (8)

(OR)

(b) (i) Explain Project Management Scheduling with a suitable example and bring out its importance in the development of software projects? (8)

(ii) What is an Earned Value and how is it helpful in project status tracking? (8)

15. (a) (i) Discuss the ISO 9000 Quality Assurance standard? (8)

(ii) What is CMM? Explain the CMM framework for improving the processes in a software organization? (8)

(OR)

(b) (i) Why do you gather data? What are the principles of data gathering? (8)

(ii) Illustrate the steps involved in a data gathering process? (8)

