

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

Paper ID : 194613

Roll No. 

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M.C.A.

Theory Examination (Semester-VI) 2015-16

**SOFTWARE PROJECT MANAGEMENT**

*Time : 3 Hours*

*Max. Marks : 100*

**Section-A**

1. **Attempt all parts. All parts carry equal marks. Write answer of each part in Short.** (2×10=20)

- (a) How do prototypes help in Software Development ?
- (b) What are the Critical factors to be considered while selecting a project team ?
- (c) List the characteristics of an organization that is at Level-1 of CMM.
- (d) Is lines of code a good measure of software estimation? Justify.
- (e) Give reasons to establish that software efforts estimation is a risky activity.
- (f) Why legal issues are important with respect to software release ?

- (g) Why are milestones important in Software Development Life Cycle ?
- (h) How should a Project Manager handle poor performers?
- (i) Give two distinct reasons to establish the need for software configuration management.
- (j) What is a critical path and how does this affect project completion ?

### Section-B

2. **Attempt any five questions from this section. (10×5=50)**

- (a) Why software management is required? Discuss the various steps of project management cycle in detail.
- (b)
  - (i) Write a short note on the vision and scope documents.
  - (ii) What do you mean by management spectrum ? Describe with suitable example.
- (c) Define the term Work Breakdown Structure (WBS). Describe various types of WBS.
- (d) Why software review is required? Discuss various methods for software project review. Explain with suitable example.

- (e) What do you mean by earned value analysis ? What are various types of earned value indicators? Describe any two earned value indicators with suitable examples.
- (f) Define software quality. Discuss various software quality attributes. Also discuss statistical quality assurance.
- (g) Define cyclomatic complexity. What is the significance of it ? How cyclomatic number is calculated? Discuss with some example.
- (h) Discuss the need of CASE. Describe any CASE tool in detail.

**Section-C**

**Attempt any two questions from this section. (15×2=30)**

- 3.
  - (i) Compare the traditional water-fall model with incremental model of software development. Give illustrative example highlighting the suitability of these models in software development.
  - (ii) Explain the framework developed by CMM in improving the productivity of a software organization.

4. Describe in details the Critical Chain Scheduling Techniques.
5. Consider a Library Management system with functionalities for inquiries, rentals, returns reservations and fees collections. Using COCOMO techniques, estimate the effort required for developing the system. State the assumptions made in the estimation.

