

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

Paper ID : 110852

Roll No. 1203210013

**B.TECH.**

**Theory Examination (Semester-VIII) 2015-16**

**SOFTWARE PROJECT MANAGEMENT**

*Time : 3 Hours*

*Max. Marks : 100*

**Section-A**

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

- (a) What is project management? Explain the need for software project management.
- (b) Differentiate between verification and validation.
- (c) What are the different project organization types?
- (d) What are the driving factors for achieving software quality?
- (e) Write about results of major milestones in a modern process.

- (f) Explain with example software project control panel.
- (g) Explain the steps for software estimation using Function Point Analysis (FPA).
- (h) What is a test plan? List the contents of a test plan.
- (i) What are the activities under software configuration management (SCM)?
- (j) Give an overview of the artifact sets that make the development of a complete software system manageable.

### **Section-B**

**2. Attempt any five questions from this section.**

**(10×5=50)**

- (a) Consider a program with an initial of 10 failure/cpu and 100 total failures. Calculate the failure experienced after 10 and 100 cpu hour of execution.
- (b) Differentiate the purpose of using network diagrams, Gantt chart and tracking Gantt chart?
- (c) Draw a schematic diagram of the architecture of the CASE environment and explain how the different tools are integrated.

- (d) Explain with diagrammatic illustration the project management life cycle?
- (e) What do you mean by a project flow diagram? How does it help in project planning?
- (f) Is it practical to specify maintainability in SRS? How would you specify it? Would it be a testable requirement?
- (g) What are the benefits of using work breakdown structure (WBS)? What is a critical path? Why is it important to identify the critical path?
- (h) What are the different techniques for project monitoring and control?

### Section-C

**Note: Attempt any two questions from this section.**

**(15×2=30)**

- 3. What is project scheduling? List and discuss the various project scheduling activities. What are the benefits of agile project management?
- 4. What are the software development modes in COCOMO? Give formula for effort / schedule estimation in basic COCOMO.

5. Write Short Note on

(a) EVA. SPI. CPI.

(b) Cyclomatic complexity.

(c) Functional and Structural testing.