

NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours**Total Marks: 100****1.**

- a) Define Project? How Project Management life cycle is related with SDLC?
- b) Define term Project Objective and Project Scope, how these are related with Planning of Project?
- c) Which metric is used for Software Project estimation? Explain types of measure and metric used for Software project?
- d) Explain why it is necessary for a project manager to decompose the tasks of a project using Work Breakdown Structure (WBS)?
- e) What is Software Project team? Explain roles and responsibilities of Project Manager.
- f) What is Risk? How it's identified in Project? List various types of Risk with example.
- g) What is Resource? Which are types of Resources used in Software Project?

(7x4)**2.**

- a) Compare ISO 9000 certification and SEI CMM. Is it possible for an organization to achieve a higher level of CMM without achieving a lower one? Justify your answer
- b) What is outsourcing? Why it is required to do outsourcing? How it is related with Contract? What could be terms and condition of Contract?
- c) What is Project Tracking? How to measure progress of Project physically and financially? Explain Earn Value Analysis method with example.

(6+6+6)**3.**

- a) What is SQA? Enlist various SQA umbrella activities. How CMM is related with SQA? Explain various levels of CMM in brief.
- b) What are the features of good SRS document? Explain with the help of suitable example.
- c) What is purpose of configuration management? What are various Software Configuration Management (SCM) Activities? How Change control Board is related with Change Management and SCM?

(6+6+6)**4.**

- a) How to allocate resources to activities / task of Project? What are various steps to do resource planning and allocation? How to calculate resource cost in Project?
- b) How to do Costing of Project? Explain type of Cost in Project? How to compare planned cost Vs. actual cost in terms of Cost variance?
- c) In Risk management of Project, explain what is RMMM plan? What are various steps to perform RMMM (Risk Mitigation, Monitoring and Management)?

(6+6+6)

5.

- a) What is meant by Project Closure? How is Project Closure Analysis carried out? Discuss a strategy to automate such a process.
- b) Suppose you are developing a software product in the organic mode. You have estimated the size of the product to be about 1, 00, 000 lines of code. Compute the nominal effort and development time.
- c) How LOC is different from function point (FP)? Describe the role of a function point analysis in project management. How can we calculate function point?

(6+6+6)

6.

- a) What are types of Organization in Software Sector? Explain various types of Organization structure. List various types of roles and responsibilities of various team members and stake holders of an organization?
- b) Consider a software project with 5 tasks T1-T5. Duration of the 5 tasks (in days) is 15,10,12,25 and 10 respectively. T2 and T4 can start when T1 is complete T3 can start when T2 is complete. T5 can start when both T3 and T4 are complete.
 - i) Draw the Gantt Chart and PERT charts for the project.
 - ii) When is the latest start date of the task T3? What is the slack time of the task T4? What is the slack time of the task T2?
- c) Discuss the aspects, which need to be considered at the pre-feasibility and feasibility study of a project, What factors and issues need to be considered in financial, economic and technical evaluation?

(6+6+6)

7.

- a) What is PERT? What are various benefits and limitation of PERT over Gantt chart?
- b) What is Critical task/activity and Critical path in Planning? How to Critical Path Management (CPM) technique is performed in planning phase? Write Steps in CPM planning.
- c) What is Gantt Chart? How it is related with Project Planning and Scheduling Activity? Draw any sample Gantt chart and explain its field and parts with suitable example of any Project Schedule.

(6+6+6)