Sl. No.

CE1.4-R4 : PROJECT MANAGEMENT

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

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

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1. (a) What are the various factors associated with cost estimation of a project ?

(b) Explain why keeping all members of a group informed about progress and technical decisions in a project can improve group cohesiveness.

(c) What factors need to be considered to organize any Software Project Management Team ?

(d) What is Risk Assessment (RA) ? Explain with the help of a suitable formula.

(e) What is Software Configuration Management (SCM) ? What should be the goals of SCM ?

(f) What are different earned value methods for cost monitoring in software projects ?

(g) Briefly explain different techniques for schedule compression.

[7x4]

2. (a) What is COCOMO ? Explain COCOMO model in detail ?

(b) Briefly explain PERT and CPM.

[9+9]

3. (a) Explain the steps required to build a Work Breakdown Structure.

(b) Explain the process of contract management. Discuss a number of bases, which may be used to support a subsequent change in a contract, so that the whole contract remains enforceable under the new arrangement.

[9+9]

4. (a) How does Acceptance Testing help in managing the projects ?

(b) What role status and milestone reports play in tracking a project ?

[10+8]

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5. (a) Explain the Nominal Group Technique and its use.

(b) As a part of case study, compute an earned value parameters for a small project. The following scheduling data (in person-days) are available :

Task	Planned Efforts	Actual Efforts
1	12.0	12.5
2	15.0	11.0
3	13.0	17.0
4	8.0	9.5
5	9.5	9.0
6	18.0	19.0
7	10.0	10.0
8	4.0	4.5
9	12.0	10.0
10	6.0	6.5
11	5.0	4.0
12	14.0	14.5
13	16.0	-
14	6.0	-
15	8.0	-

The project has 56 planned work tasks that are estimated to require 582 person-days to complete. At the time that you've been asked to do the earned value analysis, 12 tasks have been completed. However, the project schedule indicates that 15 tasks should have been completed. Compute the Schedule Performance Index (SPI) and Schedule Variance.

[10+8]

6. (a) Explain software configuration management. What is it's importance in software project management ?

(b) Describe a Source Code Control System ? What does a Source Code Control System file contain ?

[9+9]

7. (a) What are the responsibilities of a Software Quality Assurance group ? List out the activities conducted by a Software Quality Assurance group.

(b) What is the difference in ISO 9000 and ISO 9001 standards ?

[9+9]

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