No. of Printed Pages : **2**

Sl. No.

B5.1-R4 : SOFTWARE PROJECT MANAGEMENT

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) Explain in brief the software planning. Also, mention few of the problems a software project manager faces to develop a quality software project.

(b) What do you understand from project management ? Explain in brief the different activities of software project management.

(c) Explain briefly software project development costs and steps followed in cost-benefit analysis.

(d) Explain in brief the risk analysis and risk monitoring. What are major points one should consider for risk management ?

(e) Define functional point, its importance and any three advantages of function point analysis.

(f) What are major causes that may delay the delivery of a scheduled project ? Also, tell what a good manager should do to avoid such delay ?

(g) Why project estimation is a difficult task for any project developer ? Also, discuss in brief any technique for effort estimation. **(7x4)**

2. (a) What is Spiral model ? Explain different phase of spiral model. Spiral model is a realistic approach to the development of large-scale systems and software. Justify and explain the model.

(b) What is relationship between Time and Cost with respect to project management ? Explain.

(c) What are four different phases of the project management life cycle ? Discuss each in brief. **(7+5+6)**

3. (a) In a project management, why project estimation is so hard ? Discuss in brief any three techniques of project estimation.

(b) Explain the reasons for software project delays. Also, discuss the method for handling unrealistic deadlines. **(9+9)**

4. (a) Below is the table format for the data retrieved from the Test Analyst who is actually involved in testing.

S. No.	Testing Metric	Data retrieved during test case development and Execution
1	No. of requirements	05
2	Avg. no. of Test cases written per requirement	20
3	Total no. of Test cases written for all requirements	100
4	Total no. of Test cases executed	65
5	No. of Test cases passed	30
6	No. of Test cases failed	26
7	No. of Test cases blocked	09
8	No. of Test cases unexecuted	35
9	Total no. of defects identified	30

Calculate the following metrics based on above table :

(i) %ge of Test cases executed
(ii) %ge of Test cases not executed
(iii) %ge of Test cases passed
(iv) %ge of Test cases failed
(v) %ge of Test cases blocked
(vi) Defect density

(b) Discuss the steps taken by a project manager while closing and handover of the project. Also, discuss what a closure report should consists of ? **(10+8)**

5. (a) What does Web-based project management software mean ? What challenges are faced in developing a Web based software project ?

(b) Discuss in detail the risk management process. Also, discuss about the risk register or log along what it contains ? **(8+10)**

6. (a) List down the important activities needed for a good software project planning. Also, discuss the problems faced during software costs analysis.

(b) What do you mean by Cost estimation of a project ? Discuss Empirical Estimation Technique, Heuristic Technique and Analytical Estimation Technique. **(6+12)**

7. (a) WBS is an important part of the project plan. What is WBS ? How does a WBS help in preparing a good plan ?

(b) What is a Pareto diagram ? Discuss the procedures adopted for drawing it. **(9+9)**

- o 0 o -