Sl. No.

B5.1-R4: SOFTWARE PROJECT MANAGEMENT

NOTE:

1. Answer question 1 and any FOUR questions from 2 to 7.

2. Parts of the same questions should be answered together and in the same sequence.

Time: 3 Hours Total Marks: 100

- **1.** (a) What are the five desirable characteristics of a good Software Requirements Specification (SRS) document?
 - (b) Explain Cash flow forecasting.
 - (c) Explain the term Risk Mitigation.
 - (d) What are the different responsibilities of a Project Manager? Explain it.
 - (e) Define Brook's and Parkinson's law for cost estimation.
 - (f) Explain the differences between CPM and PERT model.
 - (g) State the meaning of a software quality and its quality attributes.

(7x4)

- **2.** (a) Explain the different stages of a project management life cycle.
 - (b) Explain the concept of four P's with respect to Software Project Management.
 - (c) Describe the factors behind the delay in a software project.

(6+6+6)

- 3. (a) Describe the term Risk assessment for managing the software risks in details.
 - (b) Explain the term "Work Breakdown Structure As A Project Management Tool".

(9+9)

- **4.** (a) Explain the differences between COCOMO-I and COCOMO-II software cost estimation techniques.
 - (b) Suppose that a project was estimated to be 400 KLOC. Calculate the effort and development time for the following models.
 - (i) Organic
 - (ii) Semidetached
 - (iii) Embedded

(9+9)

- 5. (a) Just assume that a project deployed in a data center is vulnerable to fire (1 in 1000 chance of getting burnt by fire). What would be the risk exposure if a new computer of cost 50000.00 rupees is installed there?
 - (b) Describe the role of a Function point analysis in project management.
 - (c) Explain the elements of Object-Oriented System.

(6+6+6)

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- **6.** Explain the following terms :
 - (a) Features of a good software
 - (b) Pareto Analysis
 - (c) Role of Project Closure Analysis

(6+6+6)

- 7. (a) Explain the term SSADM? What are the advantages and disadvantages of SSADM?
 - (b) A company is conducting the feasibility study of a project. The software has to be given free to the customer and also has to be deployed at the customer site free of charge. However, there is a maintenance contract for 5 years and the cash flow that will accrue in this regard has been shown in the following table. The cost of development is shown as negative cash accrual.

Year	Cash
0	- 100000.00 INR
1	20000.00 INR
2	30000.00 INR
3	40000.00 INR
4	50000.00 INR
5	50000.00 INR

Find the following measures:

- (i) ROI
- (ii) Payback Period
- (iii) Net present value of the proposed project if the discount rate is 10%?

(9+9)

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