

Time : 3 Hours

[Total Marks : 80]

- N.B. :**
- 1) Question No.1 is **compulsory**.
 - 2) Attempt any **Three** from the remaining questions.
 - 3) Answer to sub-questions should be grouped together.

- Q.1.**
- (a) Define project. Explain project life cycle (5)
 - (b) Explain in brief : Spiral Model (5)
 - (c) Explain FTR. (5)
 - (d) Draw the use case diagram for college admission system (5)
- Q.2.**
- (a) Define requirements engineering. Explain any two requirements elicitation techniques. (10)
 - (b) What are the key elements included in the Project Closure process (10)
- Q.3.**
- (a) Assume a database system for an office automation project is to be developed. (10)
Project complexity is organic. The system mainly consists of following 4 modules:
Data entry 0.6 KLOC
Data update 0.6 KLOC
Query 0.8 KLOC
Report generator 1.0 KLOC
System size 3.0 KLOC. Cost drivers are complexity: high (1.15), storage: high (1.06), experience: low (1.07), programming capability: low (1.17). Calculate the effort estimates for the different phases. (Assume the constants $a_1 = 2.4$, $b_1 = 1.05$, $c_1 = 2.5$ and $d_1 = 0.38$).
 - (b) Write a short note on tools and techniques used in Quality Control (10)
- Q.4.**
- (a) Write a short note on Work Breakdown Structure (10)
 - (b) What is SRS? Why it is important to develop SRS. (10)

- Q.5. (a)** The following table indicates the various tasks involved in developing any product, the corresponding activities and the estimated duration (in weeks) for each task **(10)**

The following details are available regarding a project:

Activity	Description	Predecessor Activity	Duration (Weeks)
A	Problem Definition	-	3
B	Requirement Specification	A	5
C	Design	A	7
D	Coding	B	10
E	Quality Checking	C	5
F	Implementation	D,E	4

Determine the critical path, the critical activities and the project Completion time.

- (b)** Explain RAD and Agile Development Model in detail **(10)**

- Q.6. (a)** Write a short note on Stakeholder Management **(10)**

- (b)** Explain various steps involved in Risk Monitoring and Control **(10)**
