

**Duration: 3hrs**

**[Max Marks:80]**

- N.B. : (1) Question No 1 is Compulsory.  
(2) Attempt any three questions out of the remaining five.  
(3) All questions carry equal marks.  
(4) Assume suitable data, if required and state it clearly.

- 1 Attempt any FOUR [20]**
- a** What are advantages and disadvantages of prototyping model?
  - b** Briefly explain software design concept refactoring and its types.
  - c** Define software engineering. Explain in brief the software process framework.
  - d** What is cyclomatic Complexity? Which are the different methods of computing it?
  - e** Explain in detail any one behavioral model with an example.
- 2 a** Explain in detail what is spiral model, its phases, advantages and disadvantages. **[10]**
- b** What is Use interface design Process? Explain with an example. **[10]**
- 3 a** Discuss in detail about risk and its types. Elaborate steps involved in setting/ generating RMMM plan. **[10]**
- b** Create an SRS document for an online shopping portal including **[10]**
- a) product perspective
  - b) Scope and objective
  - c) Functional requirements
  - d) Nonfunctional requirements
- 4 a** What are agility principles? Differentiate between agile and non-agile models **[10]**
- b** Write a detailed note on System testing. How is white box testing different than black box testing? **[10]**
- 5 a** Explain in detail about PERT technique. Mention advantages and disadvantages of PERT. Comment on how it is different from Gantt chart **[10]**
- b** What is FTR in SQA? What are its objectives? Explain the steps in FTR. **[10]**
- 6 a** Draw Use case and Activity diagram for application like Magic bricks for buying and renting properties. **[10]**
- b** Explain LOC and Function point project estimation techniques using their advantages and disadvantages. **[10]**

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