

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 the Stubs and drivers? Explain [5]
 - b Briefly explain software design concept refactoring and its types. [5]
 - c Explain the Waterfall model [5]
 - d Describe symbols used in DFD [5]
 - e With examples, differentiate between validation and verification. [5]
- 2 a Explain basis path testing and cyclomatic complexity with suitable examples. [10]
- b What is Software Configuration Management? Explain the various steps involved in change control. [10]
- 3 a Describe the methods to gather the requirements for an online ticket selling system for an event. Mention any four different requirements elicitation methods. [10]
- b List different metrics used for software measurement. Explain function point-based estimation technique in detail. [10]
- 4 a What is white box testing? Explain the basis path testing method in detail. [10]
- b Explain with suitable diagram Extreme Programming (XP) [10]
- 5 a Explain Agility Principles and Agile process [10]
- b Use COCOMO model to calculate [10]
- 1. Effort
 - 2. Development Time
 - 3. Average Staff Size
 - 4. Productivity
- if estimated size of project is 400 KLOC using Embedded mode.
Consider $a=3.6$, $b=1.20$, $c=2.5$, and $d=0.32$
- 6 a Discuss in detail about risk and its types also Describe risk identification [10]
- b Explain Software Design Concepts in detail [10]

83534