

**Q.P. Code :22530**

**[Time: Three Hours]**

**[Marks:80]**

Please check whether you have got the right question paper.

- N.B:
1. Question No. 1 is compulsory.
  2. Attempt any three questions out of remaining five.

- Q.1** Answer all questions **20**
- a) What are the potential problems of prototyping model?
  - b) What are the different steps recommended to determine the overall consequences of risks?
  - c) Explain cohesion and coupling. What are the benefits of high cohesion and low coupling?
  - d) With examples, differentiate between validation and verification.
- Q.2** **10**
- a) Tell the methods to gather the requirements for an online ticket selling system for an event. Mention any four different requirements elicitation methods.
  - b) With a neat diagram explain the spiral model of software development **10**
- Q.3** **10**
- a) Describe and discuss the characteristics of the agile requirements process. **10**
  - b) Prepare a risk identification checklist and RMMM plan for creating an UID with biometrics (Unique identification number) for a highly populated country. **10**
- Q.4** **10**
- a) Explain the different metrics used for software quality and reliability. **10**
  - b) Explain basis path testing and cyclomatic complexity with suitable examples. **10**
- Q.5** **10**
- a) What is Software Configuration Management? Explain the various steps involved in change control. **10**
  - b) Explain the different OO testing methods. **10**
- Q.6** Write short notes on (any two) **20**
- a) SCRUM
  - b) Service Oriented Software Engineering
  - c) Schedule and Cost Slippage
  - d) Security Engineering

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