



## **SOFTWARE ENGINEERING**

### **DEC 2017**

**Total Marks: 80**  
**Total time: 3 hours**

#### **INSTRUCTIONS**

- (1) Question 1 is compulsory.**
- (2) Attempt any three from the remaining questions.**
- (3) Draw neat diagrams wherever necessary.**

**Q.1** Attempt all four.

- (a)** What are the potential problems of prototyping model? (5)
- (b)** What are the different steps recommended to determine overall consequences of risks? (5)
- (c)** Explain cohesion and coupling. What are the benefits of high cohesion and low coupling? (5)
- (d)** With examples, differentiate between validation and verification. (5)

**Q.2.(a)** Tell the methods to gather the requirements for an online ticket selling system for an event.

Mention any four different requirements elicitation methods. (10)

**(b)** With a neat diagram explain the spiral model of software development. (10)

**Q.3.(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.(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.(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 (02)** (20)

- (a)** SCRUM
- (b)** Service Oriented Software Engineering
- (c)** Schedule and Cost Slippage
- (d)** Security Engineering