

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2019 (CUCBCSS-UG)

CC17U BCS5 B10 - PRINCIPLES OF SOFTWARE ENGINEERING

(Computer Science – Core Course) (2017 Admission Regular)

Time: Three Hours Maximum: 80 Marks

PART A

Answer *all* questions. Each question carries 1 mark.

- 1. What is an agile process?
- 2. Name software application domains.
- 3. Define requirement elicitation.
- 4. Define and draw a context diagram.
- 5. What is coupling and cohesion?
- 6. Draw a class diagram.
- 7. List any two documentation guidelines.
- 8. What are type checking?
- 9. Define Testing.
- 10. What you mean by re engineering?

 $(10 \times 1 = 10 \text{ Marks})$

PART B

Answer *all* questions. Each question carries 3 marks.

- 11. Write a short note on requirement specification.
- 12. What are UML diagrams?
- 13. Explain validation testing.
- 14. What are Software Process and Software Development Life Cycle (SDLC)?
- 15. Explain Quality assurance and Quality control.

 $(5 \times 3 = 15 \text{ Marks})$

PART C

Answer any *five* questions. Each question carries 5 marks.

- 16. Explain the waterfall software development model.
- 17. Give your views about what is more important the Product or the Process.
- 18. What is an activity diagram? Explain with example.
- 19. Explain testing strategies for webapps.

- 20. Explain design principles.
- 21. What are Functional and Non-Functional requirements?
- 22. Explain coding guidelines.
- 23. What are various types of Software maintenance?

 $(5 \times 5 = 25 \text{ Marks})$

PART D (Essay Questions)

Answer any three questions. Each question carries 10 marks.

- 24. Describe the importance of Software Engineering. What should be the steps taken under the process of developing a Software system?
- 25. Explain the concept of Data Flow Diagram with example.
- 26. Explain object oriented analysis and design methodology.
- 27. What is requirement engineering? Explain different tasks performed in requirement engineering.
- 28. a) Differentiate top-down and bottom up strategies of integration testing.
 - b) Explain briefly about debugging approaches.

 $(3 \times 10 = 30 \text{ Marks})$
