

VVM's  
Shree Damodar College of Commerce and Economics, Margao-Goa  
Second Year B.C.A, sem IV, End semester examination – April 2018  
Software Engineering (BCA-401)

Duration: 2 hours

Total marks:50

Instructions:1) All questions are **compulsory**.

2) Figures to the right indicate full marks.

3) Write assumptions wherever required & support your answers with relevant diagrams.

**Q.1 A) Answer the following**

(5\*2=10 mks)

- a) Agile methodology
- b) Adequacy attribute of software quality
- c) Give 4 examples of Non- functional requirements
- d) Object destruction in sequence diagram
- e) Feasibility study

**Q.2 Answer the following**

- a) Explain evolutionary and extreme prototyping. 2 mks
- b) Explain any three challenges of software engineering. 3 mks
- c) Discuss Unified model with a diagram, along with its strengths and weaknesses? 5 mks

**Q.3 Answer the following**

- a) Briefly explain the problems with requirements using natural language 2 mks
- b) Explain the types of actors in use case diagrams. 3 mks
- c) Draw a class diagram for hospital management system. The hospital must provide basic facilities like patient admission/discharge, operations, billings etc. 5 mks

**Q.4 Answer the following.**

- a) What is a state? How is a state and a transition represented in a state chart diagram? 2 mks
- b) Discuss the advantages and disadvantages of an interview. 3 mks
- c) Draw an activity diagram for issue and return of books in a library. 5 mks  
*For returning a book, a student waits in a queue and returns the book to the librarian. For issuing the book, a student searches for the book, selects the book, wait in a queue and requests the librarian for issue. The book is issued only if the student is a member and has not exceeded the limit of 5 books.*

**Q.5 Answer the following**

- a) Explain any two characteristics of SRS. 2 mks
- b) In what way is Gantt chart beneficial in project scheduling. 3 mks
- c) What is brainstorming? Explain the process in detail along with its advantages. 5 mks

\*\*\*\*\*All the best \*\*\*\*\*