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**B. N. Bandodkar College of Science, Thane**  
**S. Y. B. Sc. Semester IV Examination, March 2015**  
**Course Code: USCS403**

**Duration: 02.30 Hrs**

**Total Marks: 75**

- Q.1 Answer the following:**
- a. Explain waterfall model in brief. 08
- OR**
- a. Explain three approaches of software system development 08  
b. Explain prototyping model and incremental model 07
- OR**
- b. Explain spiral model in brief 07  
c. Explain project feasibility study 05
- OR**
- c. Explain project management process 05
- Q.2 Answer the following:**
- a. Write notes on : i. decision trees ii. decision tables 08
- OR**
- a. What is UML? What are the types of UML diagram? 08  
b. Explain function and non function requirements 07
- OR**
- b. Explain building prototypes and structured walkthroughs. 07  
c. Explain object oriented modeling 05
- OR**
- c. Discuss in detail data modeling 05
- Q.3 Answer the following:**
- a. Explain the following terms 08  
review, walkthrough, system analysis, system design
- OR**
- a. Explain the following terms 08  
Modularity, coupling, cohesion, drawing structure charts  
b. Explain Top down and bottom up design approach 07
- OR**
- b. Explain UML activity diagram 07  
c. Explain object oriented programming concept 05
- OR**
- c. Explain verification and validation with respect to requirements 05
- Q.4 Answer any THREE of the following:** 15
- a. What are the types of software?  
b. Explain P's in software engineering  
c. Explain Software requirements specifications  
d. With an example, discuss Entity Relationship diagram  
e. Explain component diagram  
f. Write note on Data Flow diagram.

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