

**B.TECH SEM – VIII (2007 COURSE) (INF. TECH.) :**  
**WINTER - 2017**  
**SUBJECT: SOFTWARE DEVELOPMENT METHODOLOGIES**

Day: **Friday**  
Date: **24/11/2017**

**W-2017-2690**

Time: **02.30 PM TO 05.30 PM**  
Max Marks: **80**

**N.B.:**

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining questions attempt **ANY TWO** questions form each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Answers to both sections should be written in **SEPARATE** answer book.
- 5) Assume suitable data if necessary.

**SECTION-I**

- Q.1**
- a) Justify the term ‘Software is engineered’ (05)
  - b) What do you mean by ‘States and Events’? (05)
  - c) Differentiate between Forward Engineering and Reverse Engineering. (04)
- Q.2**
- a) List several software process paradigms. Explain how both Waterfall model and Prototyping model can be accommodated in the spiral process model. (07)
  - b) Explain the factors that influence the complexity of software development (06)
- Q.3**
- a) Briefly discuss the use case relationship and draw the use case diagram of Stock Brokerage System. (07)
  - b) Define the following term: (06)  
i) Libraries ii) Framework iii) Patterns.
- Q.4**
- a) With neat activity diagram explain card verification activity of ATM bank system. (07)
  - b) List and explain different ‘Pattern categories’. (06)

**SECTION - II**

- Q.5**
- a) Compare Structured Programming and OOP. (05)
  - b) Distinguish between Verification and Validation. (05)
  - c) Write a short note on ‘Yourdon’s SAD’. (04)
- Q.6**
- a) Write a short note on various cost estimation methods. (07)
  - b) Explain the terms: (06)  
i) Requirement elicitation.  
ii) Requirement specification.
- Q.7**
- a) What is the basis of choosing SDLC models for development of software? (07)
  - b) Explain in brief ‘Process assessment and Patterns’. (06)
- Q.8**
- a) Explain different between Quality assurance, Quality control and Software testing with example. (07)
  - b) What is ‘Data driven testing’. (06)

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