

**B.TECH SEM – VIII (2007 COURSE) (COMPUTER ENGG.) :**

**SUMMER - 2018**

**SUBJECT: SOFTWARE DEVELOPMENT METHODOLOGIES**

Day : **Tuesday**  
Date : **12/06/2018**

**S-2018-2871**

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 the remaining attempt **ANY TWO** questions from each Section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the section should be written in **SEPARATE** answer book.
- 4) Use of non-programmable electronic **CALCULATOR** is allowed.
- 5) Assume suitable data, if necessary.

**SECTION-I**

- Q.1** a) Distinguish between Incremental Model and Prototyping Model. (05)  
b) What is object oriented modeling? Describe the various diagrams and their notations in UML. (05)  
c) Comment on merits and demerits of reverse engineering. (04)
- Q.2** a) Differentiate between Object oriented Design and Structural design. Explain the OMT approach in detail. (07)  
b) Suggest the most appropriate generic software process model that might be used as a basis for managing the development of software that sits inside ATM machine. Justify (06)
- Q.3** Design the structural views for 'library management system'. Draw the necessary UML diagrams for the same. (13)
- Q.4** Design the behavioral views for 'Patient management system'. Draw the necessary UML diagrams for the same. (13)

**SECTION-II**

- Q.5** a) What is a CASE tool? Describe the strength and weaknesses of CASE tools. (05)  
b) Explain in detail the principles of software project management. (05)  
c) Comment on SEI maturity model. (04)
- Q.6** a) Write a set of non-functional requirements for the ticket issuing system, setting out its expected reliability and response time. (07)  
b) Explain in detail Yourdon's SAD methodology. (06)
- Q.7** a) Explain the Ishikawa's quality tools with example. (07)  
b) List the different types of cost estimation method. Explain COCOMO model in detail. (06)
- Q.8** a) Explain in detail the verification and Validation model. (07)  
b) What is Quality Assurance? Explain how it is different from quality control. (06)

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