

B.Tech Sem – VI (2007 Course) (Computer Engg.) : SUMMER - 2019
SUBJECT: SOFTWARE ANALYSIS AND DESIGN

Day : Friday
Date : 24/05/2019

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

S-2019-3113

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) Answer to both the sections should be written in **SAME** Answer book.
- 4) Use of non- programmable electronic **CALCULATOR** is allowed.
- 5) Assume suitable data, if necessary.

SECTION - I

- Q.1** a) What is a prototype? Under what circumstances it is beneficial to construct a prototype? Does the construction of prototype always increase overall cost of software development? Justify. (05)
- b) Define measure, metric and indicators with suitable example. (05)
- c) List and discuss the activities that are carried out during detailed design. (04)
- Q.2** a) What is software development life cycle (SDLC)? Discuss various phases of SDLC. (07)
- b) Explain with example what type of software can be developed using spiral model. Is the number of loops of spiral fixed for different development project, if not explain how the number of loops in spiral is determined? (06)
- Q.3** a) What is software project planning process and what are its major activities? Explain. (07)
- b) What is risk? What are risk management activities? Is it possible to prioritize the risk? Explain. (06)
- Q.4** a) Define the concept of cohesion and Coupling and explain their types. (07)
- b) Define software architecture. What is architectural level design? Explain the architecture design process. (06)

SECTION – II

- Q.5** a) Describe five desirable characteristics of a good requirement specification document. (05)
- b) Differentiate between transform and transaction flow. (05)
- c) Comment on ISO 9000 and SEI Standards. (04)
- Q.6** Draw the Data flow diagram and control flow diagram to model the data flow in 'Airline ticket reservation system'. (13)
- Q.7** a) What is user interface design? How much it is useful in system design? Explain in detail the user interface design activities. (07)
- b) Describe in detail the various methods in black box testing. (06)
- Q.8** a) What is Software Configuration Management (SCM)? Explain the various tools used in SCM. (07)
- b) Explain what is meant by Unified modeling language (UML)? Discuss the various diagrams in UML. (06)

* * * * *