

Subject : Software Engineering

Day : Tuesday
Date : 06/12/2016



Time : 10.00 A.M. TO 1.00 P.M.
Max Marks : 80 Total Pages : 1

N.B:

- 1) Solve **ANY FIVE** questions from Section-I and **ANY TWO** questions from Section-II
- 2) Both the sections should be written in the **SAME** answer book.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION-I

- Q.1** What is Data Modeling? Discuss E-R diagramming mechanism in brief. **(10)**
- Q.2** Describe the need and composition of software inspection team. **(10)**
- Q.3** Discuss prototyping as a tool for requirement gathering, software development model and CASE tool. **(10)**
- Q.4** What is an interface? What are the elements of good graphical user interface design? **(10)**
- Q.5** What is software configuration management? Discuss change management in detail. **(10)**
- Q.6** Explain outline of user manual. **(10)**
- Q.7** Write short notes on **ANY TWO** of the following: **(10)**
- a) CASE tools
 - b) Spiral Model
 - c) Structured Programming

SECTION-II

- Q.8** A Library Management System (LMS) needs to be developed for an Educational Institute to assist and manage a Library System efficiently. The main objective of the LMS is to provide timely information for users (students as well as faculty members). The system should also keep track of the following: **(15)**
- i) Issuing / Returning of books.
 - ii) Purchase and maintenance of the books.
 - iii) The amount of the fine to be collected from the students in case of late return of the book.
- Draw the context level and first level DFD for the above case.
- Q.9** An airline offers only flights in Germany and Europe. Under special conditions a discount is offered- a discount with respect to the normal airfare. Passengers older than 18 with destinations in Germany are offered a discount at 20% , if the departure is not on a Monday or Friday. If the passengers stay at least 6 days at the destination, an additional discount of 10% is offered. **(15)**
- For destinations outside of Germany passengers are offered a discount of 25%, if the departure is not on a Monday or Friday.
 - Passengers older than 2 years but younger than 18 years are offered a discount of 40% for all destinations. Children less than 2 years are allowed free for travel.
- Explain the concept and design decision tree as well as decision table for the above case.
- Q.10** “Software Requirement Specification is generated as the output of requirement Analysis Phase”. Explain the characteristics and outline of the SRS. Also mention various problems which make the requirement analysis difficult. **(15)**

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