

This question paper contains 3 printed pages.

Your Roll No.

Sl. No. of Ques. Paper : 3360

Unique Paper Code : 62347626

Name of Paper : Software Engineering

**Name of Course : B.A. (Prog) : Computer
Applications : DSE-1B**

Semester : VI

Duration : 3 hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

The paper has two Sections. Section A is compulsory.

Attempt any five questions from Section B.

Parts of a question must be answered together.

SECTION A

1. (a) Why is software considered to be expensive? 2
- (b) "A high quality SRS reduces the development cost." Comment. 3
- (c) What is the use of Data Flow Diagram (DFD) in problem analysis? Explain. 4
- (d) What is an informal approach of problem analysis? 3
- (e) Write any three differences between an industrial strength software and a student software. 3
- (f) Briefly explain any *four* software engineering challenges. 4

P. T. O.

- (g) What is the purpose of black box testing? 3
- (h) Draw a diagram for the general structure of Software Requirement Specification document. 3

SECTION B

2. A restaurant owner wishes to automate her business. The potential users of the system are waiters and cash register operator. The basic goals for the new system were established. This includes automation of the:
- (a) Order processing
- (b) Billing
- (c) Accounting
- (d) Supplier information
- (e) Sale information
- (f) Stock management (food items and crockery items).
- You have to analyze the system and create data flow diagram (DFD). 10
3. (a) What do you mean by software configuration management? Explain why it is important. 4
- (b) What are various phases of software development process? Explain any *two* in detail. 6
4. What does the Capability Maturity Model (CMM)

- determine? Explain different maturity levels defined by SEI (Software Engineering Institute). 10
5. (a) List any *four* key limitations of waterfall model for software development process. 4
- (b) What is the main goal of prototyping based software development process? Explain prototyping based software development process model with the help of a diagram. 6
6. Briefly describe the stages of an inspection process employed by a commercial organization. List any *two* characteristics of an inspection process. 10
7. (a) How is data dictionary used in requirement analysis? Illustrate with an example. 6
- (b) Briefly describe any *two* limitations of TimeBoxing model. 4
8. (a) What are different levels of software testing? Describe briefly. 7
- (b) Define the terms Error, Fault and Failure. 3