4. Explain the following :

   (a) SRS Metrics

   (b) Data Flow Diagrams

5. (a) What is coding ? Discuss coding standards and conventions followed while coding.

   (b) What is module coupling ? How is it different from module cohesion ? Illustrate different types of coupling and cohesion.

6. Explain the following :

   (a) Verification and Validation

   (b) Software Design Approaches

7. (a) What is software testing ? How is testing important in software lifecycle ? Discuss the objectives of software testing.

   (b) What is software maintenance ? What are its different types ? How are these achieved ? Illustrate.

8. (a) What are CASE tools ? What are various types of CASE tools ? Indicate their usefulness.

   (b) Differentiate between the following :

     (i) Software re-engineering and Reverse Engineering

     (ii) Black-box and White-box testing.

Bachelor of Vocation (Web Technology & Multimedia)

4th Semester

SOFTWARE ENGINEERING

Paper–402

Time Allowed—2 Hours]   [Maximum Marks—100

Note :— There are **Eight** questions of equal marks. Candidates are required to attempt any **Four** questions.

1. (a) What is software crisis ? What are the causes of software crisis ? How can it be overcome ? Illustrate.

   (b) What do you mean by software lifecycle models ? Discuss the essence of software lifecycle models.

2. (a) What is cost estimation ? How COCOMO model is useful ? Illustrate its use for cost estimation.

   (b) What are software project estimation techniques ? Illustrate the implementation of popular software project size estimation metrics.

3. (a) What is software requirement engineering ? How is it significant ? Illustrate.

   (b) What is SRS document ? What are the main characteristics of a good SRS document ? What are its main components ? Illustrate their relevance.