7. (a) What do you mean by cohesion and coupling ? How are the concept of cohesion and coupling useful in arriving at good software design ?

   (b) What is software implementation ? Explain the relationship between design and implementation in detail.

8. What is Software Maintenance ? What is the importance of Software Maintenance ? What are various type of software maintenance ? Discuss in detail.

9. What is software testing ? How is testing important in software life cycle ? Discuss the objectives of software testing. Also explain Unit testing, Integration testing and system testing in detail.

Roll No. ....

97676

BCA 4th Semester (Full and Re-appear) Examination – October, 2020

SOFTWARE ENGINEERING

Paper : BCA-209

Time : 1.45 Hours]	[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *three* questions. All questions carry equal marks.

1. (a) Explain the concept of Software processes in detail.

   (b) What is ER Diagrams ? Explain.

   (c) What is COCOMO model ?

(d) What do you mean by validation and verification ?

(e) What do you mean by Test cases ? Explain its uses.

(f) What is Token count ?

(g) What do you mean by size estimation ?

(h) What are the benefits of software project estimation ? Explain.

2. (a) What is Software Requirements Engineering ? Discuss the various requirements engineering processes in detail.

(b) Explain the nature and characteristics of Software Requirement Specification (SRS) in detail.

3. (a) What is Software Engineering ? What are the essential characteristic and challenges of software engineering ? Explain.

(b) Compare waterfall model and spiral model of Software Development.

4. (a) What do you mean by Software Project Management ? What are the main project management activities ? Explain.

(b) How is software management different from other types of engineering managements ? Illustrate.

5. (a) What do you mean by Software Project Planning ? Also outline the goals of software project planning.

(b) Explain the following in detail :

(i) COCOMO model

(ii) Risk Management

6. (a) What is software design ? State its relevance and also discuss the importance of software design in software engineering.

(b) What are software metrics ? Discuss the effect of software metrics on software productivity.