

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.