

- (b) Explain the concept of unit testing, Integration testing and system testing in detail. 8
9. (a) What is software Maintenance ? What is the importance of Software Maintenance ? Explain in detail. 8
- (b) What are various type of software maintenance ? Discuss in detail. 8

Roll No.

97676

BCA 4th Semester

Examination – July, 2021

SOFTWARE ENGINEERING

Paper : BCA-209

Time : Three 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 : Question No. 1 is *compulsory*. Attempt other *four* questions by selecting *one* question from each Unit. All questions carry equal marks.

1. (a) What is Software Crisis ? Explain. 2
- (b) What is Token count ? 2
- (c) What are the benefits of software project estimation ? Explain. 2
- (d) Explain the concept of Software processes in detail. 2
- (e) What is COCOMO model ? 2

- (f) What do you mean by validation and verification ? 2
- (g) What do you mean by Test cases ? Explain its uses. 2
- (h) What do you mean by size estimation ? 2

UNIT - I

- 2. (a) What is Software Engineering ? What are the essential characteristics and challenges of software engineering ? Explain. 8
- (b) Explain the nature and characteristics of Software Requirement Specification (SRS) in detail. 8
- 3. (a) What is Software Requirements Engineering ? Discuss the various requirements engineering processes in detail. 8
- (b) Compare waterfall model and spiral model of Software Development. 8

UNIT - II

- 4. (a) What do you mean by Software Project Planning? Also outline the goals of software project planning. 8
- (b) How is software management different from other types of engineering managements ? Illustrate. 8

- 5. (a) What do you mean by software project management ? What are the main project management activities ? Explain. 8
- (b) Explain the following in detail : 8
 - (i) Software risk management
 - (ii) Cost Estimation Models

UNIT - III

- 6. (a) What do you mean by cohesion and coupling ? How are the concept of cohesion and coupling useful in arriving at good software design. 8
- (b) What is software design ? State its relevance and also discuss the importance of software design in software engineering. 8
- 7. (a) What is software implementation ? Explain the relationship between design and implementation in detail. 8
- (b) What are software metrics ? Discuss the effect of software metrics on software productivity. 8

UNIT - IV

- 8. (a) What is software testing ? How is testing important in software life cycle ? Discuss the objectives of software testing. 8