

Roll No. ....

97676

BCA 4th Semester (Full & Re-Appear)  
Examination – May, 2024

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 : Attempt five questions in all, selecting one question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

1. Explain the following :

- (a) Define Software Processes.
- (b) What is data structure Metrics ? Explain.

97676-8650-(P-4)(Q-9)(24)

P. T. O.

- (c) Why good coding style is useful in software engineering ?
- (d) What is reverse engineering ?
- (e) What are the goals of software engineering ?
- (f) What are the benefits of software project estimation ? Explain.
- (g) What is Object oriented design ? Explain.
- (h) Define structural testing.

UNIT – I

2. (a) Compare waterfall model and spiral model of Software Development.
  - (b) Explain how the requirement process converts the client needs to validated Software Requirement Specification (SRS).
3. (a) What is Software Engineering ? What are the major principles of Software Engineering ? Describe.

97676-8650-(P-4)(Q-9)(24)

(2)

(b) Explain the following in detail :

(i) Requirement analysis using DFD

(ii) Nature of SRS

### UNIT – II

4. (a) What is Software Project Management ? What are the main Project management activities ? Explain.

(b) How is Software management different from other types of engineering managements ? Explain.

5. Explain the following in detail :

(a) Software risk management and benefits of risk managements.

(b) Software Project Estimation models and COCOMO model.

### UNIT – III

6. (a) Explain the concept of classification of cohesiveness & coupling in detail.

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

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

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

### UNIT – IV

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

(b) Explain Unit testing, Integration Testing and system testing in detail.

9. (a) What is Software Maintenance ? What are various type of software maintenance ? Discuss.

(b) What is Software Re-engineering and configuration management ? Explain in detail.

P. T. O.

97676-8650-(P-4)(Q-9)(24) (3)

97676-8650-(P-4)(Q-9)(24) (4)