

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.