

Roll No.

97676

**BCA. 4th Semester
Examination – April, 2018**

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. Question No. **1** is *compulsory* and attempts *four* more questions by selecting *one* question from each Unit. All questions carry equal marks.

1. (a) Define software engineering ? What are its goals ?
- (b) What is the goal of problem analysis ?
- (c) Define the structure of Software Requirement Specification (SRS).
- (d) Where do we use reverse engineering ?
- (e) What is object oriented testing ?
- (f) What are the main approaches of requirement analysis ?

(g) What is the software architecture and what are the attributes of good design ?

(h) Differentiate between coupling and cohesion.

8 × 2 = 16

UNIT - I

2. Explain waterfall model linear sequential classical life cycle model traditional software life cycle model of software engineering is not accurate of software development activities. Limitations of waterfall model. 16

3. (a) What do you mean by software crisis ? What is its reason ? 8

(b) What do you mean by SRS ? What are its characteristics ? What are its components ? What are the needs of SRS ? 8

UNIT - II

4. (a) What do you understand cost estimation ? What are the major factors used in cost estimation model ? 8

(b) Explain the role of management in software development. 8

5. What are the factor affecting the cost of the software ? Give a detailed description of basic COCOMO, intermediate COCOMO and advanced COCOMO. 16

UNIT - III

6. (a) List the main advantages of using object oriented techniques over function oriented approach. 8

(b) Elaborate the concept why software design is useful ? 8

7. (a) Enumerate the important steps involved in developing a software system using object oriented methodology. 8

(b) Outline the criteria of for selecting a software design method. <http://www.HaryanaPapers.com> 8

UNIT - IV

8. What is software maintenance ? Why is too costly ? Also describe factors techniques through which software maintenance can be minimized. When it starts and why it is costly ? 16

9. (a) What do you mean by integration testing ? What are different approaches for it ? Discuss any *three* approaches with its merits and demerits. 8

(b) What are the process metrics which may be useful for accessing maintainability ? 8