

- (b) What are the different rules followed for a good coding style ? 6
- (c) What are the differences between object oriented analysis and object oriented design ? 5

**UNIT – IV**

8. (a) What are the main differences between black box testing and white box testing ? Explain different approaches used to design the White box test cases. 10
- (b) What are the different ways of documenting a software product ? 6
9. Explain the following with examples : 16
- (a) Integration testing and System testing
- (b) Configuration Management
- (c) Reverse Engineering and Re-Engineering
- (d) Testing Process

Roll No. ....

**97676**

**BCA 4th Semester**

**Examination – July, 2022**

**SOFTWARE ENGG.**

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 **four** more questions, selecting **one** question from each Unit.

1. Answer the following questions briefly :  $2 \times 8 = 16$
- (a) What do you mean by formal and informal requirements specification ?
- (b) What are the major responsibilities of the project manager ?
- (c) What is the aim of Software Engineering ?
- (d) What do you mean by Software metrics ?
- (e) What is the meaning of token count ?

- (f) Define the term Cohesion in the context of object-oriented design of the system.
- (g) What is the main difference between fault and failure? 8
- (h) Write the difference between verification and validation. 5

**UNIT - I**

- 2. (a) What are the major phases in waterfall model of software development? Explain with diagram. Which phase consumes the maximum effort for developing a software product? 10
- (b) How DFD helpful for requirement analysis? Also describe the differences between a DFD and a flow chart. 6
- 3. (a) Explain the spiral model with diagram and also explain, how the risk is handled in the spiral model? 10
- (b) Describe five desirable characteristics of a good SRS document with examples. 6

**UNIT - II**

- 4. (a) What are the major responsibilities of a software project manager? 4
- (b) What are the software metrics? What is the role of metrics in project management? 4

- (c) What are the shortcomings of LOC as a software size metric? Explain Function Point metrics to measure the size of the software with an example. 8
- 5. (a) What are the major components of a software process? Describe the purpose of each. 5
- (b) What are the different categories of the software according to the COCOMO estimation model? Give examples of software products belonging to each of these categories. 5
- (c) What do you mean by software configuration management? What is the relationship between software configuration management and software maintenance? 6

**UNIT - III**

- 6. (a) What do you mean by the term cohesion in the context of software design? Is it true that in a good design, the module should have low cohesion? Explain in detail. 6
- (b) Explain the Halsted software science measures with examples. 10
- 7. (a) What is the relationship between design and implementation? 5