

Roll No.

**22/5066**  
**B.C.A. (Fourth Semester)**  
**Examination, 2022**  
**Third Paper**  
**(Software Engineering)**

*Time : Three Hours ] [ Maximum Marks : 75*

**Note :** Attempt any **five** questions. **All** questions carry equal marks.

**Note :** The answers to short answer type questions should not exceed **200** words and the answers to long answer type questions should not exceed **500** words.

1. (a) Define the term "Software Engineering". Discuss the paradigm of Software Engineering with respect to its relevance and importance. 7+8

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- (b) What are the advantages to be gained from adopting the Software Engineering approach for Software product development?
2. (a) What are the steps involved in the Requirements Analysis phase of Software Engineering? 10+5
- (b) What are the components and application of a Data Dictionary?
3. Explain the design considerations for (i) database and file design (ii) procedural design. 10+5
4. What do you understand by Object Oriented Design? How is it incorporated into Software design phase? 15
5. Explain how the following methodologies are useful in Code Design :  $7\frac{1}{2} \times 2$
- (i) Top down approach
- (ii) Bottom-up Approach

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6. Write short notes on

5+5+5

(i) 'Good' Coding Style

(ii) System documentation

(iii) Implementation Activities

7. Why is maintenance necessarily required for software, after the implementation phase? Distinguish between preventive and corrective maintenance with suitable example. 15

8. What is the utility and need for Software Configuration Management? What are the four main functions of Configuration Management? 15

9. Write short notes on any **two** :  $7\frac{1}{2} \times 2 = 15$

(i) Review of SRS

(ii) Programming Support Environment for Implementation

(iii) CASE Tools