

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)
B.C.A. Sem-III : WINTER : 2024
SUBJECT: SOFTWARE ENGINEERING

Day : Tuesday
Date : 24/12/2024

W-18768-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N. B. :

- 1) Q. No. 4 is **COMPULSORY**.
- 2) Attempt **ANY TWO** questions from Section – I and attempt **ANY TWO** questions from Section – II.
- 3) Figures to the right indicate **FULL** marks.
- 4) Answers to both the sections should be written in **SAME** answer book.

SECTION – I

- Q. 1 Define software and distinguish between a program and software. Discuss (12)
key characteristics of software.
- Q. 2 Describe the different types of requirements and provide examples for (12)
each.
- Q. 3 Explain the characteristics of tests in software testing. How do they (12)
contribute to the overall quality of the software?
- Q. 4 Write short notes on **ANY THREE** of the following: (12)
- a) Feasibility study
 - b) Waterfall model
 - c) Characteristics of a good Software Requirement Specification (SRS) document
 - d) Formal Technical Review (FTR)

SECTION – II

- Q. 5 Describe the categories of software maintenance (Corrective, Adaptive, (12)
Perfective and Preventive) and provide examples of each.
- Q. 6 Discuss the activities involved in Software Quality Assurance (SQA) and (12)
the importance of a comprehensive SQA plan.
- Q. 7 a) You are tasked with designing a database system for a library. Develop an (12)
Entity-Relationship Diagram (ERD) that represents the relationships
between books, authors, borrowers and library branches. Additionally,
provide a brief explanation of cardinality and participation constraints in
your design.
- b) Draw Context Level and 1st Level DFD University Library.