

## BCA Second Sessional Tests 2023-2024 Third Semester BCADS1303: Software Engineering

Time:3Hours

Max. Marks: 60

(Section A)

Q.1: Attempt all Questions:

(1\*8=8)

- (a) Define Coupling?
- (b) What are various characteristics of software?
- (c) What are disadvantages of waterfall model?
- (d) What are differences between Fault and Failure?
- (e) Write short note on Data dictionary.
- (f) What do you mean by Reverse Engineering?
- (g) Discuss the differences between black box and white box testing
- (h) Whatdo you mean by Code walkthrough?

(Section B)

Q2. Attempt any TWO:

(6\*2=12)

- (a) What is testing? Explain the different types of testing.
- (b) Create level 1 DFD for food ordering system
  - (c) Explain the incremental process model with advantages and disadvantages.
  - (d) Write about Software Quality Assurance with their levels.

(Section C)

Q3. Attempt any Two:

(5\*2=10)

- (a) What is software maintenance? Explain in detail.
- (b) Explain the Software development lifecycle briefly.
  - (c) Describe the COCOMO Model of Software engineering.

Q4. Attempt any Two:

(5\*2=10)

- (a) What are Software Metrices? How Software measurement and metrices are important in Software engineering.
- (b) Create an ER diagram for hospital management system
- Define SRS. Also List desirable characteristics of a good SRS document.

Q5. Attempt any Two:

(5\*2=10)

- (a) Explain the software engineering; what do you understand by the term "software"? Discuss
- (b) Explain different types of Coupling? What is better high coupling or low coupling?
- (c) What do you understand by Software measurements? Why it is necessary for Software.

Q6. Attempt any Two:

(5\*2=10)

- (a) Explain the fundamental software design concepts in detail.
- (b) What is the difference between Function-Oriented Design and Object-Oriented Design?
- (c) What is a prototype model? Under what circumstances is it beneficial to construct a prototype model?