A-0852

BCA-15

Software Engineering

Bachelor of Computer Application (BCA)

5th Semester Examination 2024(Dec.)

Time: 2:00 hrs   Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into Two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

P.T.O.

Section-A (Long-Answer-Type Questions)

Note : Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

[2x19=38]

Q.1. Describe the key characteristics of software and discuss the qualities that define good software.

Q.2. Define System Requirement Specification (SRS). Outline its components and explain its significance in software development.

Q.3. Describe the phases of the System Development Life Cycle (SDLC). Why is it essential to follow a software life cycle model?

Q.4. What is Entity-Relationship (ER) Diagrams? Explain their purpose and illustrate with an example.

Q.5. Discuss the importance of the Data Dictionary in system design. Explain its elements and advantages.

Section-B (Short-Answer-Type Questions)

Note : Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4x8=32]

Q.1. Explain the types of Coupling and Cohesion with examples.

Q.2. Compare Black-Box Testing and White-Box Testing techniques, their advantages, and limitations.

Q.3. Define Software Engineering. How is it different from traditional engineering disciplines?

Q.4. Explain the importance of Software Engineering in the development of reliable and maintainable software.

Q.5. Define System Analysis and Requirement Analysis. How are they interconnected?

Q.6.   What is the role of a System Analyst in requirement
       gathering?

Q.7.   Briefly describe the key features of the Waterfall
       Model and its limitations.

Q.8.   Explain the main characteristics of the Spiral Model
       and the Prototyping Model.

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