

Roll No.

B.Sc. (Hons.) SEMESTER V EXAMINATION 2022-23**COMPUTER SCIENCE****CS - 110 : System Analysis and Design****Time : Three hours****Max. Marks : 70****(WRITE YOUR ROLL NO. AT THE TOP IMMEDIATELY ON THE RECEIPT OF THIS QUESTION PAPER)**

Note: Attempt any five questions. Figures on the right-hand side margin indicate max marks for each Question. Answers should be brief and to the point.

1. (a) Define a System. What are the key elements of a system? Distinguish between Conceptual, Physical and Logical System Models. (7)
- (b) Explain through a neat diagram the hierarchy of information levels and information systems in an organization. (7)
2. (a) What is Software Development Life Cycle? Explain the key elements of the Waterfall model along with its major advantages and disadvantages. (7)
- (b) Explain the commonly used Fact Finding Tools for Preliminary Investigation? (7)
3. (a) What is Feasibility Study? Explain the various types of feasibility analysis carried out during system analysis. (7)
- (b) What is the purpose of designing SRS document? Explain the typical structuring elements of SRS document. (7)
4. (a) Distinguish between Coupling and Cohesion as design principles. What is desirable and why? (7)
- (b) Describe the following terms in reference to System testing: (7)
Error, Fault, Failure, Reliability

P.T.O.

(2)

5. (a) Distinguish between verification & Validation. What are the various levels of software system testing? (7)
- (b) What is the major difference between Blackbox and Whitebox testing? Explain the Various criteria for testcase generation in the two approaches. (7)
6. (a) Describe the commonly used methods for System Conversion. (7)
- (b) Differentiate between Corrective, Adaptive and Perfective maintenance of a system. (7)
7. Write short notes on any two of the following: (2 X 7 = 14)
- (a) Tangible and Intangible Costs and Benefits
 - (b) Structured Analysis
 - (c) Role of a system Analyst
 - (d) Software Cost Estimation
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