LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

SIXTH SEMESTER – **NOVEMBER 2023**

UCS 6501 – SOFTWARE ARCHITECTURE

Date: 30-10-2023   Dept. No.   Max. : 100 Marks
Time: 01:00 PM - 04:00 PM

Part –A   (10x2 = 20)

Answer all the questions:

1. What are the roles of Software Architect?
2. What is meant by Architectural style? Mention any four commonly used Architectural styles.
3. What is ADL?
4. Write the purpose of Control Algorithm in Process Control architecture style.
5. Define Shared Information Systems.
6. What is software Integration?
7. What is Domain?
8. What are Repositories?
9. Define Generic sub-domains.
10. What is called Bounded contexts?

Part – B   (5x8 = 40)

Answer all the questions:

11. a) Write short notes on the Repositories architecture style.

(or)

b) Explain briefly the Event-Based, Implicit Invocation architectural style with neat   diagram.

12. a) Explain briefly Process-Control Paradigms

(or)

b) Discuss about the suitable Architectural style for the Instrumentation Software.

13. a) Discuss about the Database Integration with neat diagram.

(or)

b) Discuss about Architecture Structures for Shared Information Systems.

14. a) Discuss about the Layered Systems Architectural style with neat diagram.

(or)

b) Explain Life-cycle of a domain object.

15. a) How to make Implicit Concepts as Explicit in Domain Driven Design?

(or)

b) Write short notes on deep models distillation.

<u>Answer any two questions:</u>

16. a) Explain Process Control architecture style with neat diagram. (10)

   b) Explain the architectural styles based on Data abstraction and object-oriented
      organization. (10)

17.a) Explain the basic requirements for Mobile robotic architecture 10)
   b) Discuss about the Domain-Driven design (10)

18. a) Explain the Relationship between Bounded Contexts and Context Mapping for
       Strategic Design (10)
   b) Explain about pipes and filters architectural style with an example. (10)

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