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Degree: B.Tech   Semester: VII — Course work
MID-SEMESTER EXAMINATION, September, 2024

Course Title: Service Oriented Architecture
Course Code: COCSE50

Duration: 1:30 Hours

Max. Marks: 25

Note: - Attempt all questions in the given order only. Missing data/information (if any), maybe suitably assumed & mentioned in the answer.

Q. No.	Question	Marks	CO
1a	Evaluate the cost-effectiveness of implementing SOA. What are the long-term financial benefits compared to traditional monolithic architectures?	2	CO1
1b	What are the key challenges in achieving loose coupling between services in an SOA environment, and how can these challenges be addressed?	3	CO1
2a	Analyze the impact of SOA on enterprise integration. How does SOA simplify the integration of heterogeneous systems and improve overall system efficiency?	2	CO1
2b	What are the key standards and protocols that facilitate interoperability in SOA, and how do they contribute to seamless communication between heterogeneous systems?	3	CO1
3a	Define the role of a service in SOA. How do services differ from components?	2	CO1
3b	List out the importance of contracts in ensuring service consistency	3	CO2
4a	Coursera, educational technology company, shifted from monolithic architecture to service oriented architecture. List out the benefits of shifting to SOA.	2	CO2
4b	Define the following parts which are part of message in SOAP: • Envelop • Header • Body	3	CO2
5a	Analyze the impact of web services on achieving interoperability in SOA. How do web services enable communication between heterogeneous systems and platforms?	2	CO2
5b	A healthcare information system that connects hospitals, clinics, laboratories, and pharmacies has to be developed with micro services. Design a micro service named "Appointment system". Define the complete procedure.	3	CO2