KUMARAGURU
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MCA DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2020)

Third Semester

MASTER OF COMPUTER APPLICATIONS

P20CAI3201: Service Oriented Architecture

COURSE OUTCOMES

CO1: Get the foundations and concepts of service-based computing.

CO2: Understand service - oriented analysis techniques

CO3: Understanding the basic operational model of web services

CO4: Gain the knowledge of key technologies in the service-oriented computing arena

CO5: Apply and practice the learning through a real or illustrative project/case study.

Time: Three Hours   **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1.	Define the term – SOA	CO1	[K_1]
2.	Enumerate the characteristics of SOA.	CO1	[K_1]
3.	Give a short description about any two business service activities done via SOA.	CO2	[K_2]
4.	How is SOA related with web services?	CO2	[K_4]
5.	"Non-Functional Requirements define how a system will work with its operations and limitations". Associate NFR and its types in terms of SOA.	CO3	[K_2]
6.	Is service-enablement required for legacy systems to participate in SOA? Justify	CO3	[K_5]
7.	Do Big Data Analytics Service Oriented Architecture (BASOA) improves the business intelligence? Give an Example,	CO4	[K_5]
8.	How does EA differ from SOA.	CO4	[K_6]
9.	Compare SOA and Microservices.	CO5	[K_6]
10.	What are the service agreements / contracts happening in cloud and SOA architecture?	CO5	[K_2]

PART B (6 x 5 = 30 Marks)

11.	In SOA, do we need to build a system from scratch? Discuss with a relevant example.	CO1	[K_2]

No.	Question	CO	K
12.	Explain business layers in SOA for a Food Order processing system?	CO1	[K$_3$]
13.	Give a note on the various service roles.	CO2	[K$_2$]
14.	Explain how versioning – a key process in SOA is handled in the distributed environment.	CO3	[K$_4$]
15.	What is enterprise architecture alignment and its types? How does enterprise architecture help improve business and IT alignment?	CO4	[K$_4$]
16.	Write in detail about the types of cloud associated services.	CO5	[K$_5$]

Answer any FIVE Questions
PART C (5 x 10 = 50 Marks)

No.	Question	CO	K
17.	Elaborate on the various elements present in the SOAP and write about the fault element along with SOAP+HTTP binding.	CO1	[K$_5$]
18.	Give a note on how collaboration between business analysts and technology architects changes with SOA projects. What is the role of choreography and orchestration in collaboration?	CO2	[K$_6$]
19.	Explain about SOA governance, its role, open source tools and how to apply it in an organizational level.	CO3	[K$_4$]
20.	Elaborate the various steps involved in the process of creating a business case for SOA.	CO4	[K$_6$]
21.	Write about the MSA service model.	CO5	[K$_3$]
22.	Elaborate the various reasons that support the use of SOA and the implementation aspects of it in mobile applications.	CO5	[K$_5$]

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