IV B.Tech. II Semester Regular Examinations July 2021
Cloud Computing
(Computer Science and Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level

UNIT–I

1 a) Discuss how does cloud computing technology improvised some of the limitations of client/server technology?   **7M**

   b) Mention any three advantageous and any three concerns of cloud computing.   **7M**

OR

2 a) Discuss the working of Microsoft Azure cloud with a neat block diagram. Discuss the role of CDN.   **7M**

   b) What is SLA? Mention important objectives of SLA.   **7M**

UNIT–II

3 a) Give suitable examples for AND, OR, XOR and Sequential workflow patterns.   **7M**

   b) Illustrate the use of cloud services in manufacturing industry.   **7M**

OR

4 a) Discuss in detail the working of Map-Reduce programming model for parallel computation. Give the word frequency count example for the same.   **7M**

   b) Give three broad categories of cloud applications, and provide two applications for each.   **7M**

UNIT–III

5 a) Discuss the role of the following: VMM, VM and Hardware virtualization.   **7M**

   b) Explain three approaches used in Xen for network virtualization optimization.   **7M**

OR

6 a) Explain how virtualization could become fatal for your organization by highlighting its darker side,   **7M**

   b) Discuss the working of Ring-IO in Xen, along with any four salient features of Xen.   **7M**

UNIT–IV

7 Discuss the application of control theory for task scheduling in cloud computing environment.   **14M**

OR

8 a) Discuss the organization and working of HDFS.   **7M**

   b) Give the significant role of the following in cloud services:
   i.   Hadoop
   ii. Locks and Chubby   **7M**

UNIT–V

9 a) List some of the VM and VMM based threats. Why do you think Virtualization itself is a serious security concern?   **7M**

   b) What are the effects of the Dom0 in Xen becoming malicious?   **7M**

OR

10 a) Discuss the significance of trust in cloud computing by highlighting all the requirements.   **7M**

   b) What are the implications of not protecting the privacy in cloud services?   **7M**

****END****

IV B.Tech. II Semester Regular Examinations July 2021
Design Patterns Through JAVA
(Computer Science and Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full* questions by choosing one question from each unit (5x14 = 70 Marks)
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		Marks	CO	Blooms Level

UNIT–I

1.	How Design Patterns solve day to day problems of object-oriented designers face.	14M	CO1	L1

OR

2.	Explain about several different approaches to select the Design Pattern that's right for your problem.	14M	CO1	L2

UNIT–II

3.	What is the purpose of Factory Method and Explain the Factory Method with example?	14M	CO2	L1

OR

4.	Explain the Intent, Applicability, Structure, known uses and related patterns of Visitor design pattern.	14M	CO2	L2

UNIT–III

5.	Explain the Intent, Motivation, Applicability and structure of Proxy design pattern.	14M	CO3	L5

OR

6. a)	Explain briefly about Composite design pattern?	7M	CO3	L5
b)	Compare the similarities and differences between Composite, Decorator and Proxy design patterns.	7M	CO3	L4

UNIT–IV

7.	Explain about Observer design pattern with example?	14M	CO4	L6

OR

8.	Illustrate the concept of State design pattern.	14M	CO4	L4

UNIT–V

9.	Explain Guarded Suspension with an example?	14M	CO4	L2

OR

10.	How the Common Attribute Registry (or CAR) handles set of common data items or attributes in an application?	14M	CO4	L1

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IV B.Tech. II Semester Regular Examinations July 2021
Software Architecture
(Computer Science and Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	Define software architecture. What is architecture business cycle? Explain with a neat diagram.	8M	CO1	1,2
	b)	Explain the various process recommendations that are used by an architect while developing it?	6M	CO1	2
		OR			
2.	a)	Define software architecture? Explain the factors that influence software architecture.	12M	CO1	1,2
	b)	Why is software architecture is important?	2M	CO1	2
		UNIT–II			
3.	a)	Explain in detail about pipes and filters using architectural style and types. Also list their advantages and disadvantages.	10M	CO2	2
	b)	Write a note on Layered architecture.	4M	CO2	1
		OR			
4.	a)	Explain in brief about KWIC (Keyword in Context) problem with abstract data types and implicit invocation styles to implement solutions.	12M	CO2	2
	b)	Define Interpreters.	2M	CO2	1
		UNIT–III			
5.	a)	Explain the importance of integration in software development environment.	10M	CO3	5,2
	b)	Discuss about user interface architectures in detail.	4M	CO3	6
		OR			
6.	a)	Explain briefly about World wide Web.	10M	CO3	2
	b)	Discuss about Architectural structures in detail.	4M	CO3	6
		UNIT–IV			
7.	a)	Explain briefly about Architectural design Space.	7M	CO4	2
	b)	Discuss about Standard computing infrastructure CORBA in detail.	7M	CO4	6
		OR			
8.		Explain in detail about architectural description language.	14M	CO4	2
		UNIT–V			
9.		Write in detail about universal connector language	14M	CO5	2
		OR			
10.	a)	Describe in brief about Organizational Implications of a Product Line.	10M	CO5	1
	b)	What are Assets and write about Reusing Architectural Assets.	4M	CO5	1

****END****

IV B.Tech. II Semester Regular Examinations July 2021
Semantic Web and Social Networks
(Computer Science and Engineering)

Max. Marks: 70   Time: 3 Hours
Answer *any five full questions* by choosing one question from each unit (5x14 = 70 Marks)
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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	Discuss the advantages and disadvantages of today's WWW. How to overcome these limitations? Justify it.	8M	CO-1	L2
	b)	Compare and contrast Web 2.0 and Semantic Web Technologies.	6M	CO-1	L2
		OR			
2.	a)	Describe how HTML limits the manipulation of data.	7M	CO-1	L1
	b)	Describe the road map for the semantic Web.	7M	CO-1	L1
		UNIT–II			
3.	a)	Explain three essential types of knowledge that ontology of services provides with suitable examples.	8M	CO-2	L3
	b)	Compare and contrast OWL with UML.	6M	CO-2	L2
		OR			
4.	a)	Describe Resource Description Framework in detail.	7M	CO-2	L2
	b)	Differentiate between OWL-DL and OWL-Lite.	7M	CO-2	L2
		UNIT–III			
5.	a)	What are the rules and inference engines in Ontology engineering?	7M	CO-3	L1
	b)	Discuss about ontology Sharing and Merging.	7M	CO-3	L2
		OR			
6.	a)	Discuss about ontology engineering and ontology development tools.	7M	CO-3	L2
	b)	Make a strong case for ontology libraries and ontology mapping.	7M	CO-3	L4
		UNIT–IV			
7.	a)	Discuss about semantic Web applications and Web services	8M	CO-4	L2
	b)	Explain semantic search technology.	6M	CO-4	L2
		OR			
8.	a)	Describe the generic architecture of Semantic Web application.	8M	CO-4	L2
	b)	Explain about inference engines.	6M	CO-4	L2
		UNIT–V			
9.	a)	Explain how to create Semantic Web applications with social networking capabilities in detail.	8M	CO-5	L3
	b)	Explain the following: i) Elmo ii) Blogs and online communities.	6M	CO-5	L2
		OR			
10.	a)	Explain blogs and social network features.	7M	CO-5	L2
	b)	What is social network? How is social network analysis a different approach to social phenomenon?	7M	CO-5	L1

END