

(Accredited by NAAC, Approved by A.I.C.T.E. New Delhi, Recognised by Govt. of Karnataka & Affiliated to V.T U., Belgaum) #29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bangalore- 560090

### **Department of Computer Science and Engineering**

**Subject Name: Cloud Computing** 

SEM: 7

Faculty: Latha A

Subject Code: 21CS72 DIV: A & B

### **Question Bank**

#### Module-1

SL#	Question	СО	Level	Marks
1.	Define Cloud Computing. What are the characteristics of cloud architecture that separates it from traditional one?	CO1	L2	6
2.	Give the advantages of cloud computing. Highlight the importance of the term "cloud computing."	CO1	L2	10
3.	Illustrate the evolutionary trend towards distributed and cloud computing.	CO1	L3	10
4.	Bring out the differences between private cloud and public cloud.	CO1	L2	10
5.	Mention what is the difference between elasticity and scalability in cloud computing?	CO1	L2	8
6.	How is On Demand provisioning of resources applied in cloud computing?	CO1	L2	6
7.	Formulate the technologies on which cloud computing relies.	CO1	L2	12
8.	Investigate how a company can benefit from cloud computing.	CO1	L2	6
9.	Illustrate the cloud reference model with diagram in detail	CO1	L2	10
10.	Give the importance of cloud computing and elaborate the different types of services offered by it.	CO1	L2	10
11.	Briefly explain each of the cloud computing services. Identify two cloud providers by company name in each service category.	CO1	L4	10
12.	Mention different cloud service providers list and Explain in detail about the major services provided by them	CO1	L2	10
13.	Discuss about the public, private and hybrid cloud	CO1	L2	10



(Accredited by NAAC, Approved by A.I.C.T.E. New Delhi, Recognised by Govt. of Karnataka & Affiliated to V.T U., Belgaum) #29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bangalore- 560090

## **Department of Computer Science and Engineering**

### **Module-2**

SL#	Question	СО	Level	Marks
1.	What is Virtualization? Explain any 4 characteristics of Virtualization Environments	CO2	L2	10
2.	Discuss Taxonomy of Virtualization Techniques	CO2	L2	10
3.	Distinguish and compare the main characteristics of Different types of system level Virtualization.	CO2	L3	10
4.	Contrast the features of Full virtualization with paravirtualization and partial Virtualization.	CO2	L3	8
5.	Explain Virtual machine monitors with a neat diagram.	CO2	L3	8
6.	Discuss the machine reference model of execution virtualization.	CO2	L3	8
7.	Discuss the architecture of Hyper-V. Discuss its use in cloud computing.	CO2	L3	8
8.	Define Hypervisor. Explain Hypervisor Reference Architecture with a neat diagram	CO2	L2	8
9.	What are hardware virtualization techniques? Explain Type I and Type II hypervisor	CO2	L2	8
10.	What are the Pros and Cons of virtualization in the context of cloud computing?	CO2	L2	6
11.	Explain in detail about process level virtualization and its type.	CO2	L2	8
12.	What is Xen? Discuss its elements for virtualization.	CO2	L2	8
13.	Compare Xen, Microsoft-HV and VMWare virtualizer.	CO2	L3	8
14.	What is Microsoft Hyper V? Discuss its elements for virtualization.	CO2	L2	6
15	Explain:	CO2	L2	10
	a) Storage Virtualization b) Desktop Virtualization c) Programming language virtualization d) Application Level Virtualization			

### **Module-3 Question Bank**

SL#	Question	CO	Level	Marks
1.	Explain Cloud Computing Architecture with a neat diagram	CO2	L2	10



(Accredited by NAAC, Approved by A.I.C.T.E. New Delhi, Recognised by Govt. of Karnataka & Affiliated to V.T U., Belgaum) #29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bangalore- 560090

## **Department of Computer Science and Engineering**

2.	Outline the features of utility-based models for cloud-based Web services.	CO2	L2	6
3.	with Diagram mention and explain in detail about Which are the basic components of an IaaS-based solution for cloud computing. Provide some examples of IaaS implementations.	CO2	L2	10
4.	What are the main characteristics of a Platform-as-a-Service solution?	CO2	L2	4
5.	Classify the various types of clouds. Give an example of each	CO2	L2	4
6.	List some of the challenges in cloud computing.	CO2	L2	6
7.	Explain SaaS in detail	CO2	L2	10
8.	Define the term vendor-lock in and Explain the respective cloud service where it occurs in detail.	CO2	L3	12
9.	Compare different types of cloud based on its access.	CO2	L3	10
	List and Explain the challenges and Economics of cloud	CO2	L2	10
10.	Discuss heterogeneous cloud and Community Cloud.	CO3	L2	10

### Module 4

SL#	Question			
1.	Identify the main security threats for the SaaS cloud delivery model on a public cloud. Discuss the different aspects of these threats on a public cloud vis-à-vis the threats posed to similar services provided by a traditional service-oriented architecture running on a private infrastructure.	CO3	L2	10
2.	Analyze how the six attacks applied to the SaaS, PaaS, and IaaS cloud delivery models.	CO3	L2	10
3.	Define Privacy and explain how privacy impact assessment can be done	CO3	L2	10
4.	Why is trust important in cloud computing, and how does it impact users and providers?	CO3	L2	10
5.	What type of problems does the Amazon Virtual Private Cloud address?	CO3	L2	10



(Accredited by NAAC, Approved by A.I.C.T.E. New Delhi, Recognised by Govt. of Karnataka & Affiliated to V.T U., Belgaum) #29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bangalore- 560090

## **Department of Computer Science and Engineering**

6.	Introduce and present the services provided by AWS to support connectivity among applications.	CO3	L2	10
7.	Analyze Amazon's privacy policies and design a service-level agreement you would sign if you were to process confidential data using AWS.	CO3	L2	10
8.	Analyze the implications of the lack of trusted paths in commodity operating systems and give one or more examples showing the effects of this deficiency. Analyze the implications of the two-level security model of commodity operating systems.	CO3	L2	10
9.	Discuss about Operating System Security in detail	CO3	L2	10
10.	Discuss in detail about Security risks posed by shared images	CO3	L2	10
11.	Discuss in detail Security risks posed by a management OS with a neat diagram	CO3	L2	10
12	Explain Virtual Machine Security with a neat diagram	CO3	L2	10

### **Module 5**

SL#	Question			
1.	What is AWS? What types of services does it provide?	CO3	L2	10
2.	Describe Amazon EC2 and its basic features.	CO3	L2	10
3.	What is a bucket? What type of storage does it provide?	CO3	L2	10
4.	What are the differences between Amazon SimpleDB and Amazon RDS?	CO3	L2	10
5.	What type of problems does the Amazon Virtual Private Cloud address?	CO3	L2	10
6.	Introduce and present the services provided by AWS to support connectivity among applications.	CO3	L2	10
7.	Discuss about Messaging in AWS and additional services	CO3	L2	10
8.	discuss Google AppEngine platform architecture with a neat diagram and also mention the type of service is AppEngine?	CO3	L2	10
9.	What is DataStore? What type of data can be stored in it?	CO3	L2	10



(Accredited by NAAC, Approved by A.I.C.T.E. New Delhi, Recognised by Govt. of Karnataka & Affiliated to V.T U., Belgaum) #29, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bangalore- 560090

## **Department of Computer Science and Engineering**

10.	State and Explain the basics of Google App Engine infrastructure programming model. Describe the core components of AppEngine.	CO3	L2	12
11.	What are the development technologies currently supported by AppEngine?	CO3	L2	10
12	Discuss the compute services offered by AppEngine.	CO3	L2	10
13	Discuss about the Application life cycle	CO3	L2	10
14	What fundamental advantages does cloud technology bring to scientific applications?	CO3	L2	10
15	Describe how cloud computing technology can be applied to support remote ECG monitoring with a neat diagram of health monitoring systems hosted in the cloud.	CO3	L2	10
16	What are the advantages cloud computing brings to the field of geoscience?  Explain with an example	CO3	L2	10
17	What are Dropbox and iCloud? Which kinds of problems do they solve by using cloud technologies?	CO3	L2	10
18	What is the most important advantage of cloud technologies for social networking applications?	CO3	L2	10
19	Describe an application of cloud computing technology in the field of biology.	CO3	L2	10
20	Describe an application of cloud technologies for online gaming.	CO3	L2	10
21	What are Web desktops? What is their relationship to cloud computing?	CO3	L2	10
22	Describe the key features of Google Apps.	CO3	L2	10
23	What is Salesforce.com?	CO3	L2	10
24	Describe some examples of CRM and ERP implementations based on cloud computing technologies.	CO3	L2	10
25	explain about Amazon elastic block store and Amazon ElastiCache	CO3	L2	10
	Provide some examples of media applications that use cloud technologies.			