Reg.No.:												

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN

[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]

Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 50034

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Sixth Semester

Computer Science and Engineering

U19CS625 – CLOUD COMPUTING

(Regulation 2019)

Time: Three Hours Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Depict the importance of on-demand provisioning in e-commerce applications.	2	K2	CO1
2.	Distinguish between the definitions of cloud computing is a service and cloud computing is a platform.	2	K2	CO1
3.	Define the role and benefit of virtualization in cloud.	2	K2	CO2
4.	Infer about Virtual machine monitor.	2	K2	CO2
5.	Outline the key challenges associated in the process of storing images in cloud.	2	K3	CO3
6.	Identify the major players involved in cloud computing.	2	K2	CO3
7.	Give the formal notation of MapReduce dataflow.	2	K1	CO4
8.	Name any two security challenges associated with cloud in today's digital scenario.	2	K1	CO4
9.	Define security governance.	2	K2	CO5
10.	Analyze the security awareness in cloud and do you think it is important?	2	K3	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.		Questions	Marks	KL	CO
11.	a)	Formulate stage-by-stage evolution of cloud with neat sketch and formulate any three benefits, drawbacks achieved by it in the banking and insurance sectors.	13	K2	CO1
		(OR)			
	b)	Discuss the underlying parallel and distributed computing principles adopted by cloud in the IT sector and brief the drawbacks incurred.	13	K2	CO1
12.	a)	Outline the various levels of virtualization with an example for each category.	13	K2	CO2
		(OR)			
	b)	Outline the problems in virtualizing in CPU, I/O and memory devices and suggest how it could be overridden for efficient utilization of cloud services.	13	K2	CO2
13.	a)	Describe the storage structure of S3 bucket with neat sketch and write rules in order to make the bucket available for public access.	13	K3	CO3
		(OR)			
	b)	Outline the various deployment models of cloud with neat sketch and identify which among them could be applied to formulate cloud structure for a small firm.	13	K2	CO3
14.	a)	Represent the structure of inter-cloud resource management and explain why two or more clouds need to interact with each other. Provide an example for the same.	13	K3	CO4
		(OR)			
	b)	Compute Min-Min and Max- Min Heuristic algorithm for the following tasks. Represent Task scheduling with Giantt Chart.	13	K4	CO4

	T1	T2	T3
M1	140	20	60
M2	100	100	70

15.	a)	Detail the structure of openstack and explain each of its components.	13	K1	CO5
		(OR)			
	b)	Write detailed steps to set the google app engine environment for executing any program of your choice.	13	K1	CO5

PART – C

(1 x 15 = 15Marks)

Q.No.		Questions	Marks	KL	CO
16.	a)	As a data center administrator, you are responsible to carry out the maintenance, operations, infrastructure design and management. If a primary computer system fails in the data center, elaborate the steps that must be carried out to overcome the failure. Illustrate the same with a neat sketch.	15	K3	CO4
		(OR)			
	b)	I am starting a new company to analyze videos. I'll need a lot of storage as videos consume quite a bit of disk. Additionally, I'll need ample computational power, possibly running applications concurrently. I have discovered some very good tools to facilitate development in Windows but the deployment will be more efficiently handled in the Linux environment. All the pointers say that I need to move to cloud. I have found that SaaS is the most attractive service, followed by PaaS and IaaS, in that order. Given the above information, which service do you recommend? Why?	15	K3	CO3