

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: 60029

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – JAN. 2025

Sixth Semester

Electronics and Communication Engineering

U19ITOE3 - BASICS OF 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.	How does energy efficiency in cloud computing contribute to reducing carbon footprint?	2	K2	CO1
2.	What is mean by Virtualization Middleware?	2	K1	CO1
3.	Differentiate full virtualization and para-virtualization.	2	K2	CO2
4.	What is Instruction Set Architecture (ISA) level of virtualization?	2	K1	CO2
5.	State the significance of Inter-cloud resource management.	2	K1	CO3
6.	What is the role of cloud broker in cloud computing?	2	K1	CO3
7.	Differentiate between Walrus and Storage controller of Eucalyptus.	2	K2	CO4
8.	How does Google App Engine handle data storage and management?	2	K2	CO4
9.	List few current cloud trends that support ubiquitous computing.	2	K1	CO5
10.	Enlist the key benefits of using cloud platforms for IoT applications.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Enlist and explain various software environments of distributed and cloud computing with a layered architecture.	13	K2	CO1
	(OR)			
b)	Compare and contrast the different approaches to network-based computing, such as client-server, peer-to-peer, and cloud computing, and assess their relative strengths and weaknesses	13	K3	CO1
12. a)	Compare virtual and physical clusters. Explain how resource management done for virtual clusters.	13	K2	CO2
	(OR)			
b)	Design a virtualization-based automation solution that can dynamically allocate and optimize resources for different types of workloads in a multi-tenant data-center environment.	13	K3	CO2
13. a)	Discriminate Intercloud vs multi-cloud vs hybrid cloud. Elaborate the necessity to leverage/link multiple public cloud services together and point out the primary benefits and the associated challenges in Intercloud environment.	13	K2	CO3
	(OR)			
b)	Assess the role of cloud computing service models in driving innovation and business growth, and evaluate their impact on the overall digital transformation of organizations in different industries.	13	K2	CO3
14. a)	Describe briefly the role of Manjrasoft Aneka in facilitating research and development in the field of distributed and parallel computing. State the potential risks and challenges associated in deployment.	13	K2	CO4
	(OR)			
b)	Discuss the various services offered by Amazon AWS to the consumers across the world, Elucidate in detail the working nature of AWS pricing model and EC2.	13	K2	CO4
15. a)	Analyze the role of IoT in the context of cloud computing for the development of smart cities, and evaluate its impact on urban planning, management, and sustainability.	13	K4	CO5
	(OR)			

- b) Deliberate the role and impact of cloud computing in social networking in various dimensions. Highlight the challenges related to cloud based storage for various social network services. 13 K2 CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	Analyze and evaluate the impact of cloud computing on e-commerce and evaluate the role of different cloud computing platforms, including Nimbus, OpenNebula, Sector, Sphere, and OpenStack, in supporting e-commerce applications. Provide a case study of a company that has adopted a cloud computing platform for e-commerce, and assess the potential benefits and challenges associated with using cloud computing for e-commerce.	15	K4	CO4

(OR)

b)	Create a plan for implementing virtualization for data-center automation in a hypothetical organization, including the selection of appropriate virtualization tools, mechanisms, and security measures. Justify your plan by discussing the potential benefits and challenges associated with virtualization, and provide recommendations for ensuring a successful implementation.	15	K6	CO3
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