CLASS: MTECH   SEMESTER : I
BRANCH: CSE   SESSION : MO/2024

SUBJECT: CS536 CLOUD COMPUTING

TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. **The question paper contains 5 questions each of 10 marks and total 50 marks.**
2. **Attempt all questions.**
3. **The missing data, if any, may be assumed suitably.**
4. **Before attempting the question paper, be sure that you have got the correct question paper.**
5. **Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.**

			CO	BL
Q.1(a)	Discuss the three major models for deploying and accessing cloud computing environments?	[5]	1	2
Q.1(b)	Identify which of the cloud computing model discussed in Q1(b) is appropriate for the following scenarios	[5]	1	2

    (i) A company needs to host its own virtual machines and storage but doesn't want to maintain physical hardware.

    (ii) A company is looking to streamline its application development process and needs a platform with integrated databases, development frameworks, and deployment tools but doesn't want to deal with infrastructure management.

    (iii) A company wants to avoid the costs of maintaining its own data centers and only needs access to virtualized computing resources.

    (iv) An enterprise needs an accounting software solution accessible from anywhere, with no need for internal maintenance, upgrades, or server infrastructure.

    (v) A developer wants to host their own applications but needs a cloud-based virtual server and storage.

			CO	BL
Q.2(a)	In parallel computing, what is the difference between "data parallelism" and "process parallelism"?	[5]	2	4
Q.2(b)	Discuss in detail any message based model in inter-process communication in a distributed system.	[5]	2	2
Q.3(a)	How does a hypervisor-based virtualization work in a cloud computing environment?	[5]	3	4
Q.3(b)	Does virtualization enhance Platform as a Service (PaaS) offerings in the cloud? Justify.	[5]	3	5
Q.4(a)	What challenges might arise when integrating multiple cloud platforms in a heterogeneous cloud environment?	[5]	4	3
Q.4(b)	What are the three different pricing models implemented in cloud environment?	[5]	4	2
Q.5(a)	Define the term containers in context to ANEKA cloud. Discuss any two services offered by these containers.	[5]	5	2
Q.5(b)	What is the role of Platform Abstraction Layer (PAL) in ANEKA?	[5]	5	3