

GYANMANJARI INNOVATIVE UNIVERSITY

GYANMANJARI INSTITUTE OF TECHNOLOGY

B.Tech.-Mid Semester Examination (MSE)-W2026

Enrollment No.: _____

Subject Code: BETCE17336

Date: 22-09-2026

Subject Name: Cloud Computing

Semester: 07

Time: 02:30 PM To 04:30 PM

Total Marks: 60

Instructions:

1. Question No. 1 is compulsory.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

	Marks
Q.1 (a) Differentiate between IaaS, PaaS and SaaS with one suitable example of each.	05
(b) Differentiate between Type-1 and Type-2 Hypervisors with suitable examples.	05
(c) Write a short note on the cold start problem in serverless computing.	10
Q.2 (a) Enlist any five services provided by Amazon AWS and state the purpose of each.	05
(b) Explain Authentication and Authorization with suitable examples.	05
OR	
(b) Differentiate between Symmetric Key and Asymmetric Key Encryption on the basis of key management, speed and suitability in cloud.	05
(c) Explain virtualization in cloud computing. Discuss the following: 1. Server, storage and network virtualization 2. Hypervisors and Advantages of virtualization 3. Role of virtualization in cloud data centers	10
OR	
(c) Explain Serverless Computing in detail.	10
Q.3 (a) Write a short note on Amazon EC2.	05
(b) Justify the need for virtualization in a cloud data center.	05
(c) Compare Virtual Machines and Containers on the basis of architecture, isolation, boot time, resource overhead, portability and use cases.	10
OR	
Q.3 (a) Draw and explain a microservices based cloud architecture for an online food delivery application.	05
(b) Propose a suitable hybrid cloud model for a multi-speciality hospital and justify the placement of its data and applications.	05
(c) What is Kubernetes? Draw and explain its architecture with master node and worker node components.	10