

**MASTER OF COMPUTER  
APPLICATIONS  
(MCA-NEW)**

**Term-End Examination**

**June, 2025**

**MCS-227 : CLOUD COMPUTING AND IoT**

*Time : 3 Hours*

*Maximum Marks : 100*

*Weightage : 70%*

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**Note :** (i) *Question No. 1 is compulsory.*

(ii) *Answer any **three** questions from the  
rest.*

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1. (a) Define Cloud Computing. List and explain the *four* categories of Cloud Deployment models. 10

- (b) Define Virtual Machine (VM) sizing.  
Explain any *one* way to do VM sizing. 10
- (c) What is 'Edge Computing' ? Explain its working. 10
- (d) Discuss the challenges in IoT Application Development. 10
2. (a) What is meant by 'Resource Sharing' in Cloud Computing ? Explain its implementation of single tenancy and multi-tenancy types of Resource Sharing in Cloud Computing. 10
- (b) List and explain any **ten** IoT technologies. 10

3. (a) Define a sensor with reference to an IoT device. Explain its characteristics. Explain any *two* IoT sensors along with their functions in the IoT devices. 10
- (b) What is Fog Computing ? Also, explain Desktop Level Virtualization. 10
4. (a) Write and explain fixed amount auto-scaling algorithm. 10
- (b) What is an Actuator ? Explain any *four* types of Actuators. 10
5. (a) What is a Cloud Computing Service Delivery Model ? Explain any *four* cloud computing service delivery models. 10

(b) What is meant by 'Load Balancing' ?

Explain Weighted Round Robin  
algorithm with reference to load  
balancing. 10

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