

22594

12425

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) Define :
 - (i) Cloud computing
 - (ii) Hardware virtualization
- (b) List any two features of Infrastructure as a Service (IaaS).
- (c) State what is cloud data warehouse.
- (d) Define data collection and data ingestion in data pipelines.
- (e) List any two advantages of Elastic Resources.
- (f) List any two features of Azure ML studio.
- (g) Define key-value databases.

2. Attempt any THREE of the following :

12

- (a) State advantages of cloud computing in ML.
- (b) Describe private cloud deployment model with suitable example.



- (c) Compare different cloud storage types.
- (d) Describe different challenges and risks in cloud computing.

3. Attempt any THREE of the following : 12

- (a) State any 4 characteristics of a cloud computing.
- (b) Explain SLA and SLO in detail.
- (c) Describe any 4 benefits of using data pipeline.
- (d) Explain Platform as a Service (PaaS) in detail.

4. Attempt any THREE of the following : 12

- (a) Explain evolution of cloud computing from Mainframe to cloud computing.
- (b) Describe cloud computing architecture with diagram.
- (c) Explain data delivery in cloud computing.
- (d) Explain container registries.

5. Attempt any TWO of the following : 12

- (a) Explain Batch data and Streaming data in machine learning with example.
- (b) What is Kubernetes in the cloud and explain Kubernetes verses Docker ?
- (c) Explain AWS SageMaker and state features of AWS SageMaker.

6. Attempt any TWO of the following : 12

- (a) Describe Architecture of Moder Data pipelines.
 - (b) Explain different states of Docker container. State features of Docker.
 - (c) Describe ML Systems available in market. State any four benefits of ML platform.
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