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24225

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Assume suitable data, if necessary.

Marks

1. Attempt any FIVE of the following :

10

- (a) Define :
 - (i) Cloud Computing
 - (ii) Hardware Virtualization
- (b) Define cloud service management in cloud computing.
- (c) Enlist cloud-based tools used for data science in ML.
- (d) Define :
 - (i) Data Collection
 - (ii) Data Delivery
- (e) Define Elastic Resources.
- (f) Enlist any two features of Azure ML studio.
- (g) Define cloud data governance.

2. Attempt any THREE of the following :

12

- (a) Explain characteristics of cloud computing.
- (b) Explain Software as a Service (SaaS) in detail with advantages.
- (c) Explain types of Cloud Storage with example.
- (d) What are advantages of Cloud Computing in Machine Learning ?



- 3. Attempt any THREE of the following : 12**
- (a) Explain challenges and risks related to various aspect in cloud computing.
 - (b) Explain SLA and SLO in detail.
 - (c) Explain Data pipeline characteristics.
 - (d) Explain Cloud Deployment Models.
- 4. Attempt any THREE of the following : 12**
- (a) Describe Grid Computing, Cluster Computing, Mainframe Computing and Cloud Computing.
 - (b) Explain Cloud Computing Architecture with neat diagram.
 - (c) Compare ETL and ELT.
 - (d) Differentiate between Virtualization and Containerization.
- 5. Attempt any TWO of the following : 12**
- (a) Differentiate between Batch data and Streaming data in machine learning.
 - (b) Explain different states of Docker container. State features of Docker. (any 2)
 - (c) Describe ML systems available in Market. State any 4 benefits of ML platform.
- 6. Attempt any TWO of the following : 12**
- (a) Draw and explain Architecture of Modern Data Pipeline.
 - (b) Explain Kubernetes in the cloud and state any three common issues with kubernetes.
 - (c) Explain Azure ML Studio.
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