

Title : Question Paper**FF No. 868**

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Bansilal Ramnath Agarwal Charitable Trust's
VISHWAKARMA INSTITUTE OF TECHNOLOGY, PUNE – 411037.
(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

Examination: ESE**Year: TY****Branch: AI &DS****Subject: Cloud Computing****Subject Code: AI3007****Max. Marks: 60****Total Pages of Question Paper: 2****Day & Date:****Time:**

Instructions to Candidate

1. All questions are compulsory.
2. Neat diagrams must be drawn wherever necessary.
3. Figures to the right indicate full marks.

Q. N.	CO No	BT* No		Max marks
Q. 1. A)	1	1	Define cloud computing and describe its five fundamental characteristics.	6 marks
Q. 1. B)	1	2	Compare IaaS, PaaS and SaaS.	4 marks
Q. 2. A)	2	2	Discuss following virtualization techniques. 1. Application virtualization 2. Desktop virtualization 3. Hardware virtualization	6 marks
			OR	
Q. 2. A)	2	2	Differentiate between Single Tenancy and Multitenancy. Discuss advantages and limitations of multitenancy.	6 marks
Q. 2. B)	2	2	Define virtualization and summarize its benefits.	4 marks
Q. 3. A)	3	3	Illustrate an architecture of GFS with the help of suitable diagram	6 marks
Q. 3. B)	3	2	Describe four types of NoSQL cloud databases.	4 marks
Q. 4. A)	4	4	Explore the different services provided by AWS to its user? Discuss use cases for the same services.	6 marks
			OR	
Q. 4. A)	4	4	Explore the different services provided by GCP to its user? Discuss use cases for the same services.	6 marks
Q. 4. B)	4	2	Draw and explain SOA architecture used in cloud computing.	4 marks
Q. 5. A)	5	5	MapReduce a programming model for processing large datasets on larger cluster. Justify with an example.	6 marks
Q. 5. B)	5	2	What are the consideration of Service Level Agreements (SLA) and types of SLA in cloud computing.	4 marks
Q. 6. A)	6	2	How network level security threats are different from application-level security threats?	6 marks
Q. 6. B)	6	2	Which security issues or concerns need to be considered in cloud.	4 marks

CO Statements:

CO1: Illustrate the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud.

CO2: Investigate the resource virtualization technique for a given business case.

CO3: Choose the appropriate file system and database for a given business case.

CO4: Develop an application for a given business case using various cloud platforms.

CO5: Understand service management of cloud services.

CO6: Identify the challenges in Cloud Management and Cloud Security.

***Blooms Taxonomy (BT) Level No:**

1. Remembering; 2. Understanding; 3. Applying; 4. Analyzing; 5. Evaluating; 6. Creating