

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. IV Year I Semester Regular & Supplementary Examinations October/November-2025
CLOUD SERVICES AND VIRTUALIZATION

(Common to CIC & CSM)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|---|---|-----|----|----|
| 1 | a | Explain in detail about Cloud Computing and its advantages. | CO1 | L2 | 6M |
| | b | Discuss System models for Distributed and Cloud Computing. | CO1 | L2 | 6M |

OR

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|---|--|--|-----|----|-----|
| 2 | | List the Cloud Models and explain any two of them clearly. | CO1 | L1 | 12M |
|---|--|--|-----|----|-----|

UNIT-II

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|---|--|---|-----|----|-----|
| 3 | | Explain the tools and mechanisms used for virtualization in cloud environments. | CO2 | L2 | 12M |
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OR

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|---|---|--|-----|----|----|
| 4 | a | Describe the Virtual clusters and resource management. | CO2 | L2 | 6M |
| | b | Briefly explain the different types of virtualization. | CO2 | L2 | 6M |

UNIT-III

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|---|---|--|-----|----|----|
| 5 | a | Define storage virtualization and discuss its role in data management. | CO3 | L2 | 6M |
| | b | Explain the different types of storage virtualization techniques. | CO3 | L2 | 6M |

OR

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|---|--|---|-----|----|-----|
| 6 | | Discuss the various types of server virtualization. | CO3 | L2 | 12M |
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UNIT-IV

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|---|---|---|-----|----|----|
| 7 | a | Explain the Map-Reduce model and its advantages. | CO4 | L2 | 6M |
| | b | Discuss the process of mapping and reducing in the Map-Reduce paradigm. | CO4 | L2 | 6M |

OR

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| 8 | | Discuss the key features and services provided by Amazon AWS. | CO4 | L2 | 12M |
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UNIT-V

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|---|---|---|-----|----|----|
| 9 | a | What are the major challenges in designing cloud architectures? Explain it. | CO5 | L1 | 6M |
| | b | Identify and discuss strategies to overcome design challenges in cloud development. | CO5 | L3 | 6M |

OR

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|----|---|--|-----|----|----|
| 10 | a | Discuss the role of automation in resource provisioning for cloud platforms. | CO5 | L2 | 6M |
| | b | How does effective platform deployment improve cloud service delivery? | CO5 | L2 | 6M |

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