

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2025**

VIRTUALIZATION TECHNOLOGY AND CLOUD COMPUTING

[Maximum Marks: 75]

[Time: 3 Hours]

PART-A

I. Answer ‘all’ the following questions in one word or one sentence. Each question carries ‘one’ mark.

(9 x 1 = 9 Marks)

| | | <small>Module Outcome</small> | <small>Cognitive level</small> |
|----|--|-------------------------------|--------------------------------|
| 1. | A hypervisor, also known as a..... | M1.01 | R |
| 2. | List any two virtualisation software tools. | M1.04 | R |
| 3. | List any two components of Network Virtualization. | M2.05 | R |
| 4. | Write two limitations of Application Virtualization. | M2.10 | R |
| 5. | List any two characteristics of cloud computing. | M3.01 | R |
| 6. | List two main part of the cloud computing. | M3.04 | R |
| 7. | EC2 is an example of----- | M4.01 | R |
| 8. | List any two cloud Service models. | M4.01 | R |
| 9. | List any two features of on-demand computing. | M4.07 | R |

PART-B

II. Answer any ‘eight’ questions from the following. Each question carries ‘three’ marks.

(8 x 3 = 24 Marks)

| | | <small>Module Outcome</small> | <small>Cognitive level</small> |
|-----|--|-------------------------------|--------------------------------|
| 1. | Describe about the virtualization. | M1.01 | R |
| 2. | Write about any three software tools used in application virtualization. | M1.04 | R |
| 3. | Write a short note on VM migration Services. | M2.06 | U |
| 4. | Describe the Virtual LAN and its benefits. | M2.06 | U |
| 5. | Write short notes on RDS. | M2.08 | R |
| 6. | Write a short note on cloud infrastructure. | M3.02 | U |
| 7. | Write short notes on the PaaS with examples. | M4.01 | R |
| 8. | Explain the community cloud. | M4.02 | R |
| 9. | Briefly explain the cloud backup. | M4.06 | U |
| 10. | Write a short note on cloud storage. | M4.03 | U |

PART-C

Answer 'all' questions from the following. Each question carries 'seven' marks.

(6 x 7 = 42 Marks)

| | | Module Outcome | Cognitive level |
|-------|--|----------------|-----------------|
| III. | Describe the importance of virtualization. OR | M1.01 | U |
| IV. | Which type of hypervisor is directly installed to the hardware? Explain with neat figure. | M1.04 | U |
| V. | Explain about server virtualization and storage virtualization. OR | M1.03 | U |
| VI. | Explain type 2 hypervisor and its characteristics. | M1.04 | U |
| VII. | Explain VM Clones, Templates and Snapshots. OR | M2.03 | U |
| VIII. | Explain Advantages and Limitations of Desktop Virtualization. | M2.07 | U |
| IX. | List and explain any three benefits and limitations of cloud computing. OR | M3.01 | R |
| X. | Explain the four vendors of cloud computing. | M3.02 | R |
| XI. | List and explain the detailed requirements of the data center. OR | M3.03 | U |
| XII. | Explain cloud computing architecture with a neat diagram. | M3.04 | U |
| XIII. | Write about three cloud deployment models with examples. OR | M4.02 | R |
| XIV. | Describe on-demand computing. | M4.07 | U |
