

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE, NOVEMBER - 2024**

VIRTUALIZATION TECHNOLOGY AND CLOUD COMPUTING

[Maximum Marks : 75]

[Time : 3 hours]

PART-A

I. Answer **all** the following questions in one word or sentence. Each question carries 1 mark.

(9x1=9 marks)

		Module Outcome	Cognitive level
1	Define Virtualization.	M1.01	R
2	A server has Four VM are running on it, then what is the consolidation ratio of that server?	M1.01	U
3	Define Snapshot.	M2.03	R
4	How many cores are available in a server with two quad core processor?	M2.02	U
5	What is Virtual machine migration?	M2.06	R
6	Name the property of Cloud computing which enables, with the expansion of business further resources are included to support progress of business.	M3.01	U
7	Define SLA.	M3.02	R
8	What is Private Cloud?	M4.02	R
9	Define Cloud Storage.	M4.03	R

PART B

II. Answer **any Eight** questions from the following. Each question carries 3 marks.

(8x3=24 marks)

		Module Outcome	Cognitive level
1	Write about Server consolidation.	M1.01	R
2	Summarize benefits of Virtual Machine.	M2.01	U
3	What is virtual switch and types of virtual switches?	M2.06	R
4	Compare VM Clone and Templates.	M2.03	U
5	What is RDS?	M2.08	R
6	Summarize the limitations of cloud computing.	M3.01	U
7	Outline the Computing on Demand.	M4.07	U
8	What is 'compute' in cloud data center core elements?	M4.04	R
9	Summarize the importance of SaaS cloud service model.	M4.01	U
10	Write a short note on Hybrid cloud storage.	M4.03	R

PART C

Answer **all** questions from the following. Each question carries 7 marks.

(6x7=42marks)

		Module Outcome	Cognitive level
III	Compare Xen Hypervisor and Microsoft Hyper-V hypervisors.	M1.06	U
	OR		
IV	(a) Illustrate the architecture of VMM with a diagram. (4 Marks)	M1.03	U
	(b) Compare Type 1 and Type 2 Hypervisor. (3 Marks)	M1.04	U
V	Explain the components of Network virtualization.	M2.05	U
	OR		
VI	(a) Consider the scenario, VirtualBox software is installed in a Windows server machine. In VirtualBox a Virtual machine is created and Linux operating system is running on it. (i) Which is the Guest OS in this scenario? (ii) Which is the Host OS in this scenario? (iii) Which Hypervisor software is use in this scenario? (3 Marks)	M2.01	U
	(b) Summarize the advantages of Application Virtualization. (4 Marks)	M2.10	U
VII	Outline the cloud architecture on the basis of virtual switches load balancing with diagram.	M3.05	U
	OR		
VIII	Summarize the needs of cloud computing.	M3.01	U
IX	Summaries cloud data center core elements.	M4.04	U
	OR		
X	(a) Summarize the important features of PaaS for application developers. (4 Marks)	M4.02	U
	(b) Compare two local replication technologies on the basis of the site where the replication is carried out. (3 Marks)	M4.06	U
XI	(a) What is the role of hypervisors? (4 Marks)	M1.05	R
	(b) What is meant by virtualizing server? (3 Marks)	M1.03	R
	OR		
XII	(a) What is containment? (3 Marks)	M1.01	R
	(b) Write about any four Types 2 Hypervisors. (4 Marks)	M1.04	R
XIII	What are the technological influences on cloud computing?	M3.04	R
	OR		
XIV	Explain the characteristics of cloud computing.	M3.06	R
