

Cloud Computing (315325)

MSBTE Diploma · K-Scheme · Model Question Paper — Set C

Time: 3 Hours**Max. Marks: 70****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. Figures to the right indicate full marks.
5. Assume suitable data, if necessary.
6. Mobile phone, pager and any other electronic communication devices are not permissible in the examination hall.

Q.1 Attempt any FIVE of the following:**10**

- a) Define private cloud. Give any two examples.
- b) Define virtualization. List any four types of virtualization.
- c) State any two differences between GFS and HDFS.
- d) Name the four phases of the cloud service life cycle.
- e) Define multi-tenancy in cloud computing.
- f) List any four technical risks in cloud computing.
- g) Define ubiquitous computing. Name any two cloud trends that support it.

Q.2 Attempt any THREE of the following:**12**

- a) Compare public, private and hybrid cloud. (Any four points)
- b) What is VM migration? Explain VM management.
- c) Name the components of a VDC environment. Explain the benefits of desktop and application virtualization.
- d) A company uses e-mail, CRM and payroll SaaS applications and employees find it hard to remember many passwords. Which IAM feature will you recommend? Explain how it works.

Q.3 Attempt any THREE of the following:**12**

- a) Explain the characteristics of a virtualized environment.
- b) Explain the phases of the cloud service life cycle with a neat diagram.
- c) Explain wireless sensor networks and GPS as enabling technologies for IoT.
- d) Explain data outsourcing and metadata security in cloud computing.

Q.4 Attempt any THREE of the following:**12**

- a) Explain the role of middleware in cloud computing with the layered cloud architecture.

- b) Explain the purpose of the virtualization layer. Draw the structure of Type-1 and Type-2 hypervisors.
- c) Explain the operationalization phase of SLA life cycle. Which type of SLA does an IaaS customer need?
- d) Compare server-side and client-side encryption. (Any four points)
- e) Differentiate between CRM and ERP in the context of cloud computing. (Any four points)

Q.5 Attempt any TWO of the following:

12

- a) Explain the IaaS service model with its functions, advantages and disadvantages. Give a suitable example.
- b) Describe Google File System (GFS) — its components, features, advantages and disadvantages.
- c) Explain ZigBee technology and describe a smart-home application built using ZigBee.

Q.6 Attempt any TWO of the following:

12

- a) Explain the five essential characteristics of cloud computing and its cost benefits.
- b) A company wants to run Linux and Windows applications on the same physical server and cut hardware cost. Explain how virtualization helps. Write advantages and disadvantages of virtualization.
- c) Explain the benefits of Google App Engine, OpenStack and OpenNebula as cloud platforms.

Note: This is a **model question paper prepared by Ananda Technologies** only for practice and exam preparation, based on the pattern of previous MSBTE question papers and the K-scheme syllabus. It is **not an official MSBTE paper**, and it does **not** mean that these questions will come in the exam. Answers follow standard textbook points; marks shown are indicative. Free for students — anandatechnologies.in