

**B.Tech 8th Semester Exam., 2022**

( New Course )

**CLOUD COMPUTING**

Time : 3 hours

Full Marks : 70

**Instructions :**

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **NINE** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question No. 1 is compulsory.

1. Attempt any seven parts :  $2 \times 7 = 14$ 

- (a) Discuss the role of Internet in the growth of cloud computing.
- (b) What is syntactic transparency?
- (c) Briefly discuss about the concept of virtual machine.
- (d) What is public cloud?
- (e) Differentiate between elasticity and scalability in cloud computing.

- (f) Write a short note on hardware virtualization.
- (g) What is Service-Level Agreement?
- (h) What is utility computing?
- (i) What is digital signature?
- (j) List the services offered by Amazon Cloud Web Service.

2. Attempt all Parts :  $7 \times 2 = 14$ 

- (a) Define cloud computing. Explain essential characteristics of cloud computing.
- (b) Discuss the operational and economic benefits of Software-as-a-Service.

3. Attempt all Parts :  $7 \times 2 = 14$ 

- (a) What is virtualization? What are its benefits?
- (b) Explain the issues with multi-tenancy.

4. Attempt all Parts :  $7 \times 2 = 14$ 

- (a) What are Google Cloud Platform Components? Explain with example.
- (b) What is a Service-Level Agreement (SLA)? How can SLA management be performed in cloud computing?

( 3 )

5. Attempt *all* Parts : 7×2=14

(a) Explain the concept of Amazon Web Service in Cloud.

(b) Describe the IBM Smart Cloud architecture and core services.

6. Attempt *all* Parts : 7×2=14

(a) Write short notes on Groupware and VMware.

(b) Explain the idea of deadline-constrained task scheduling algorithm for cloud computing.

7. Attempt *all* Parts : 7×2=14

(a) What is a virtual machine monitor (VMM)? Write its functions.

(b) What is VM migration? Explain the concept of any VM migration technique.

8. Attempt *all* Parts : 7×2=14

(a) List and discuss different types of security challenges in cloud computing.

(b) What are the issues involved in maintaining virtual machine level security in cloud?

( 4 )

9. Attempt *all* Parts : 7×2=14

(a) What is IoT? How IoT edge devices are used to process and collect the data?

(b) Write the advantages and disadvantages of using green cloud computing.

\*\*\*