Reg.No.: ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚

**VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN**
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

## Question Paper Code: 5005

**B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – MAY / JUNE 2024**
Sixth Semester
Computer Science and Engineering
U19CS625 – CLOUD COMPUTING
(Regulation 2019)

Time: Three Hours                                    Maximum: 100 Marks

Answer ALL the questions

| Knowledge Levels (KL) | K1 – Remembering | K3 – Applying | K5 - Evaluating |
|---|---|---|---|
| | K2 – Understanding | K4 – Analyzing | K6 - Creating |

## PART – A

(10 x 2 = 20 Marks)

| Q.No. | Questions | Marks | KL | CO |
|---|---|---|---|---|
| 1. | List the main characteristics of Cloud computing. | 2 | K2 | CO1 |
| 2. | Differentiate private and hybrid cloud. | 2 | K3 | CO1 |
| 3. | What is Host VM? Give Example. | 2 | K3 | CO2 |
| 4. | Mention the virtual clusters. | 2 | K1 | CO2 |
| 5. | Why resource provisioning needed? | 2 | K3 | CO3 |
| 6. | What are storage clouds? | 2 | K2 | CO3 |
| 7. | Write the use of Hive. | 2 | K2 | CO4 |
| 8. | Define Megastore. | 2 | K1 | CO4 |
| 9. | Mention Cloud applications related to healthcare. | 2 | K3 | CO5 |
| 10. | List any 2 security issues in cloud. | 2 | K2 | CO5 |

## PART – B

(5 x 13 = 65 Marks)

| Q.No. | Questions | Marks | KL | CO |
|---|---|---|---|---|
| 11. a) | Explain NIST Cloud Computing Architecture with neat diagram. | 13 | K2 | CO1 |
| | (OR) | | | |
| b) | What are types of cloud model? Explain in detail. | 13 | K2 | CO1 |

| | | | | Marks | KL | CO |
|---|---|---|---|---|---|---|---|
| 12. | a) | i. | Explain XEN hypervisor model in detail. Mention its advantages. | 7 | K3 | CO2 |
| | | ii. | Explain virtual private cloud in detail. | 6 | K2 | CO2 |
| | | | (OR) | | | |
| | b) | i. | Explain virtualization of CPU, I/O devices with neat diagram. How virtualization helps VMM? | 7 | K3 | CO2 |
| | | ii. | Explain Virtualization of data center automation in detail. | 6 | K2 | CO2 |
| 13. | a) | | Explain layered cloud architecture development diagram. What are the design challenges? | 13 | K3 | CO3 |
| | | | (OR) | | | |
| | b) | | How inter cloud resources are managed? Explain about resource provisioning and platform deployment. | 13 | K3 | CO3 |
| 14. | a) | | Explain google file system in detail. | 13 | K2 | CO4 |
| | | | (OR) | | | |
| | b) | | Explain MS Azure in detail. | 13 | K2 | CO4 |
| 15. | a) | | What are the cloud security challenges and Risks? How Risk management is handled in cloud computing. Explain in detail. | 13 | K3 | CO5 |
| | | | (OR) | | | |
| | b) | | How cloud computing used for scientific applications. Explain in detail. | 13 | K3 | CO5 |

## PART – C

(1 x 15 = 15 Marks)

| Q.No. | | Questions | Marks | KL | CO |
|---|---|---|---|---|---|
| 16. | a) | Explain MapReduce with an example relevant to your college/institute. What are its advantages? | 15 | K3 | CO4 |
| | | (OR) | | | |
| | b) | Explain Cloud application related to Business and Consumer Applications. Which type of cloud service model can be considered here? What type cloud storage can be used for this? | 15 | K3 | CO5 |