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| **Semester: January 2024 –April 2024**  **Maximum Marks: 100 Examination: ESE Examination Duration:3 Hrs.** | | | | |
| **Programme code:**  **Programme: B.Tech** | | **Class:**TY | | **Semester: VI(SVU 2020)** |
| **Name of the Constituent College:**  **K. J. Somaiya College of Engineering** | | | **Name of the department: Computer Engineering** | |
| **Course Code:116U01E629** | **Name of the Course: Cloud Computing** | | | |
| **Instructions: 1)Draw neat diagrams 2) All questions are compulsory**  **3) Assume suitable data wherever necessary** | | | | |

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| **Que. No.** | **Question** | **Max. Marks** | **CO** | **BT** |
| Q1 | Solve any **Four** | **20** |  |  |
| i) | What are the key characteristics of cloud computing? | 5 | CO1 | RE |
| ii) | Describe the Infrastructure as a Service (IaaS) model. | 5 | CO1 | UN |
| iii) | Differentiate Public cloud and Private cloud. | 5 | CO2 | UN |
| iv) | Discuss third party cloud Services. | 5 | CO5 | RE |
| v) | Explain Google Cloud Platform. | 5 | CO3 | UN |
| vi) | Describe NIST (National Institute of Standards and Technology) cloud definition. | 5 | CO1 | RE |

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| **Que. No.** | **Question** | **Max. Marks** | **CO** | **BT** |
| Q2 A | Solve the following | **10** |  |  |
| i) | Explain Cloud Reference model. | 5 | CO2 | UN |
| ii) | Write a note on Manjrasoft Aneka. | 5 | CO1 | UN |
|  | OR |  |  |  |
| Q2 A | Compare the compute, storage, and communication services of AWS and Google Cloud Platform? | 10 | CO3 | UN |
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| Q 2 B | Solve any **One** | **10** |  |  |
| i) | Describe the role of virtualization in cloud computing? | 10 | CO2 | UN |
| ii) | Discuss some popular cloud-computing providers, and what distinguishes them from one another? | 10 | CO1 | AP |

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| **Que. No.** | **Question** | **Max. Marks** | **CO** | **BT** |
| Q3 | Solve any **Two** | **20** |  |  |
| i) | Explain the need of Virtualization in the context of Cloud Computing. Compare type-1 and type-2 Virtualization | 10 | CO2 | UN |
| ii) | Explain the concepts of Dockers, containers, and microservices in cloud computing? | 10 | CO5 | UN |
| iii) | Discuss the key features and benefits of Microsoft Hyper-V in the context of virtualization? | 10 | CO2 | UN |

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| **Que. No.** | **Question** | **Max. Marks** | **CO** | **BT** |
| Q4 | Solve any **Two** | **20** |  |  |
| i) | Explain in brief about Amazon web services (AWS). | 10 | CO3 | RE |
| ii) | Illustrate the concept of scientific application using cloud for ECG analysis. | 10 | CO4 | RE |
| iii) | Discuss some challenges and considerations when deploying multiplayer online gaming applications in the cloud? | 10 | CO4 | AP |

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| **Que. No.** | **Question** | **Max. Marks** | **CO** | **BT** |
| Q5 | Write notes on any **four** | **20** |  |  |
| i) | Hadoop | 5 | CO1 | UN |
| ii) | SalesForce.com | 5 | CO1 | UN |
| iii) | Google AppEngine | 5 | CO3 | RE |
| iv) | ERP | 5 | CO4 | RE |
| v) | SpotCloud | 5 | CO5 | UN |
| vi) | DevOps | 5 | CO5 | UN |