Name:.....
Roll No:.....

MAR ATHANASIUS COLLEGE OF ENGINEERING (AUTONOMOUS),
KOTHAMANGALAM - 686666
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.TECH FIRST SERIES EXAMINATION, AUGUST 2026 (S7 CS,AIML)
CST 423 CLOUD COMPUTING

Max. Marks: 40 Duration: 1.5 Hours

PART A

Answer all questions. Each question carries 3 marks.

1. A developer wants to deploy applications while allowing the cloud provider to manage the underlying hardware and operating system. Which service model should be selected, Justify Your answer (CO1)
2. Differentiate between Grid computing and Cluster computing. (CO1)
3. Describe the Bare Metal Approach and mention its benefits. (CO2)
4. A Java application needs to run on computers having different underlying operating systems. Identify the appropriate type of virtual machine and explain how it helps. (CO2)

PART B

Answer all questions. Each question carries 14 marks.

5. (a) Consider an online shopping site whose transaction workload increases during the festive season like Christmas. So for this specific period of time, the resources need a spike up. As a cloud enthusiast, what feature or service would you consider;Cloud elasticity or Cloud scalability? Justify your answer. (CO1) (7 marks)

   (b) With the help of a diagram, Explain NIST Cloud Computing Reference Architecture.(CO1) (7 marks)

6. (a) A software company needs to test its application on Windows, Linux, and different software configurations. Purchasing a separate physical machine for each testing environment is expensive. How can virtualization be applied to solve this problem? Explain the advantages of the proposed approach. (CO2) (7 marks)

   (b) What is virtualization? List any four pros and cons of virtualization. (CO2) (7 marks)

VISION

Mould competent professionals to serve as valuable resources for society in pursuit of excellence.

MISSION

- Provide quality education in Computer Science to equip with cutting- edge technologies.
- Mould disciplined and Socially Committed engineers capable of professional leadership.
- Promote theoretical and practical understanding, along with critical thinking and logical reasoning.