Reg. No. : | E | N | G | G | T | R | E | E | . | C | O | M |

Question Paper Code : 40436

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2024.

Fifth/Sixth Semester

Computer Science and Engineering

CCS 335 – CLOUD COMPUTING

(Common to: Computer Science and Design/Computer Science and Engineering (Artificial Intelligence and Machine Learning)/Computer Science and Engineering (Cyber Security)/Computer and Communication Engineering/Artificial Intelligence and Data Science/Computer Science and Business Systems/Information Technology)

(Regulations 2021)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Define distributed computing.

2.   Outline the difference between a public cloud and a private cloud.

3.   Define a virtual machine.

4.   What is a cloud hypervisor?

5.   Define a virtual cluster.

6.   What is a Docker in cloud computing?

7.   Outline elasticity in a cloud computing environment.

8.   What is Eucalyptus?

9.   Name any two security attacks in a cloud computing environment.

10. Write any two challenges of IAM.

PART B — (5 × 13 = 65 marks)

11. (a) What is cloud computing? Outline the NIST cloud computing reference architecture with a diagram. (13)

Or

(b) Outline Infrastructure as a Service model, Platform as a Service model and Software as a Service model with an example. (13)

12. (a) What is virtualization? Present an outline of the implementation levels of virtualization. (13)

Or

(b) Outline virtualization of CPU and I/O devices with an example. (13)

13. (a) Outline desktop virtualization, network virtualization and storage virtualization with an example. (13)

Or

(b) Outline the components of a Docker with a diagram. (13)

14. (a) Outline the Google App Engine platform for Platform as a Service with a diagram. (13)

Or

(b) What is OpenStack? How is OpenStack used in a cloud computing environment? What are the components of OpenStack? Outline. (13)

15. (a) Present an outline on data privacy and security concerns in a cloud computing environment with examples. (13)

Or

(b) What is Identity and Access Management (IAM)? Outline the IAM architecture. (13)

PART C — (1 × 15 = 15 marks)

16. (a) Present an architectural design for a hybrid cloud. State the functional requirements you are considering. (15)

Or

(b) Present a framework for security in a cloud computing environment. State the requirements you are considering. (15)

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