Reg. No. :

Question Paper Code : 40403

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Seventh/Eighth Semester

Computer Science and Engineering

CS 8791 — CLOUD COMPUTING

(Common to Computer and Communication Engineering/Information Technology)

(Regulations 2017)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Cloud computing.

2. Depict the importance of on-demand provisioning in e-commerce applications.

3. Define the role and benefit of virtualization in cloud.

4. What is disaster recovery?

5. What is a Hybrid cloud?

6. Outline the key challenges associated in the process of storing images in cloud.

7. What is Inter-cloud?

8. Name any two security challenges associated with cloud in today's digital scenario.

9. What is Hadoop?

10. Write a note on Federated services.

PART B — (5 × 13 = 65 marks)

11. (a) Formulate stage-by-stage evolution of cloud with neat sketch and formulate any three benefits, drawbacks achieved by it in the banking and insurance sectors.

Or

(b) Discuss the underlying parallel and distributed computing principles adopted by cloud in the IT sector and brief the drawbacks incurred.

12. (a) Outline the various levels of virtualization with an example for each category.

Or

(b) Outline the problems in virtualizing in CPU, I/O and memory devices and suggest how it could be overridden for efficient utilization of cloud services.

13. (a) Describe the storage structure of S3 bucket with neat sketch and write rules in order to make the bucket available for public access.

Or

(b) Outline the various deployment models of cloud with neat sketch and identify which among them could be applied to formulate cloud structure for a small firm.

14. (a) Represent the structure of inter-cloud resource management and explain why two or more clouds need to interact with each other. Provide an example for the same.

Or

(b) What is IAM and detail the segregation roles carried out by IAM when services of multiple organizations are maintained within the same geographical location?

15. (a) Detail the structure of Openstack and explain each of its components.

Or

(b) Write detailed steps to set the google app engine environment for executing any program of your choice.

PART C — (1 × 15 = 15 marks)

16. (a) As a data center administrator, you are responsible to carry out the maintenance, operations, infrastructure design and management. If a primary computer system fails in the data center, elaborate the steps that must be carried out to overcome the failure. illustrate the same with a neat sketch.

Or

(b) Elaborate the working of MapReduce with an example.

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