LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – DATA SCIENCE

FIRST SEMESTER – NOVEMBER 2019

PDS 1601 – CLOUD COMPUTING

Date: 09-11-2019   Dept. No.   Max. : 100 Marks
Time: 01:00-04:00

PART-A

Answer all Questions: -   **10 X 2 = 20**

1. Define cloud computing.

2. State three important operational models of cloud.

3. What is the significance of a virtual machine?

4. Differentiate Public Cloud from Private Cloud.

5. Define the following terms:
    a. Resource Pooling
    b. Logging

6. What are the advantages and disadvantages of Monolithic architecture?

7. With an example of your own, define FaaS.

8. State the advantages of serveless architecture.

9. What are the challenges for Virtual Machine security?

10. Define DevOps.

PART-B

                                                                              5 X 8 = 40

Answer all Questions:-

11. (a) Why is it necessary to prefer Cloud Computing over on-premise computing? Jot down your thoughts on it.

(OR)

(b) Define VPC. Explain its working for services offered by Amazon?

12. (a) Describe the following terms with an illustration:
    a. Metrics
    b. Microservices

(OR)

(b) Explain why Continuous Deployment is important.

13. (a) Illustrate the differences between monolithic architecture and microservices architecture.

(OR)

(b) State and explain the 12-factor application design.

14. (a) Write a note on the prominent Cross-cutting concerns in a DevOps model.

(OR)

(b) Illustrate the BaaS model.

15. (a) What are the components of Cloud Security? Illustrate with a triad.

(OR)

(b) List out the different Cloud-specific cryptographic techniques? Explain in brief.

PART-C

Answer any TWO Questions:-   **2 X 20 = 40**

16. (a) Discuss on the different pricing models for AWS?
    (b) Explain the different networking services provided by Azure.

17. (a) Elaborate on the different service models provided by Cloud?
    (b) Discuss the factors considered for infrastructure services.

18. (a) With the help of a block diagram, explain the STRIDE threat model.
    (b) What is the aspect of Security in cloud? Explain its working for a virtual machine?

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