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END TERM EXAMINATION - MAY 2022

SEMESTER - VI

(B.Tech- DevOps- batches 2019)

Subject Code: CDV3022

Duration: 3 hours

Subject: Domain-Driven Approach to
Design & Implement Microservices

Max. Marks: 100

Instructions

- All Questions are compulsory
- The Question paper consists of 2 sections - Part A contains 10 questions of 2 marks each. Part B consists of 5 questions of 16 marks each.
- There is no overall choice. Only Part B question include internal choice.

PART - A

(2 * 10 = 20 Marks)

1. List out the benefits of Software Architecture.
2. What are the parts present in monolithic enterprise applications?
3. Draw the MS architecture.
4. Define building blocks.
5. Justify loose coupling in MS architecture.
6. What is Denial of Service?
7. Mention the tokens generated in Rainyday Grocer Account login Microservice.
8. How the API communicate with each other through messages to handle client request.
9. Why API gateway?
10. List out the tools help to provide a defense of integrity.

PART - B

(16 * 5 = 80 Marks)

11. a) Write short notes on Software architecture and its stakeholders, SOA components and its principles.

OR

b) Explain in detail Microservices architecture components, principles and its strength.

12.a) How Domain Driven design applies to microservices.

OR

b) Brief it Service communication and the API gateway.

13.a) Write short notes on Injection, Broken Authentication, and XML external entities.

OR

b) Explain briefly Rainyday Grocer ordering-delivery process, and microservices reference architecture.

14. a) Write short notes on Cross site scripting, Insecure deserialization, and security misconfiguration.

OR

b) Discuss the security triad. Explain symmetric key cryptography and asymmetric key cryptography with neat block diagram. Encrypt and decrypt the message "LIVE WHAT YOU LOVE", let key is 5 and use ceaser cipher method.

15.a) Justify any 3 companies that implement the microservice architecture and paved the way for others.

OR

b) Discuss in details how does Microservice Architecture works.