

TIME:2 Hours

Total Marks: 60

- N. B.:(1)All questions are compulsory.  
(2)Make suitable assumptions wherever necessary and state the assumptions made.  
(3)Answers to the same question must be written together.  
(4)Numbers to the right indicate marks.  
(5)Draw neat labeled diagrams wherever necessary.  
(6)Use of Non-programmable calculators is allowed.

**Q1. Attempt the two of the following.**

**12 Marks**

- What is microservice architecture? Explain the characteristics in detail.
- Explain in detail the maturity model for building the microservice architecture -----
- What is monolith application? Enlist and explain its disadvantage.
- Enlist and explain the operating principles of UNIX.

**Q2. Attempt the two of the following.**

**12 Marks**

- Why we need for More Servers?
- Discuss the Need for an API Gateway.
- What is Independent Deployability?
- Explain with example Monitoring and Alerting.

**Q3. Attempt the two of the following.**

**12 Marks**

- What is .NET Core? Explain its components?
- Explain how to build the location service?
- Explain the process of continuous integration using Wercker.
- Explain the steps for creating a CI pipeline for the team service.

**Q4. Attempt the two of the following.**

**12Marks**

- Describe the database context
- What is Redis cache
- How do you Submit Sample Data
- How do you run the services

**Q5. Attempt the two of the following.**

**12 Marks**

- Define Real Time Systems
- How do you build the proximity monitor?
- How do you dispose of the synchronous composite pattern
- Describe Composite Microservices

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