

(Time: 2 ½ Hours)

[Total Marks: 75]

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 labelled diagrams wherever necessary.

(6) Use of Non-programmable calculators is allowed.

Q1. Attempt the three of the following.

15 Marks

- What is monolith application? Enlist and explain its disadvantage.
- Write down the Principles of the microservices (as James Lewis).
- With the suitable diagram, explain the microservice design model
- Write a short note on “Goals for the microservices way”.
- Enlist and explain the operating principles that can act as starter material for the company.

Q. 2 Attempt the three of the following.

15 Marks

- Write down the boundaries of microservices.
- Explain the term CQRS in detail.
- Write a short note on. Distributes transaction and sagas.
- Explain the term Independent deployability in detail.
- Explain the term Domain Driven Design in detail.

Q3. Attempt the three of the following.

15 Marks

- What is Net core? Explain the components of .Net core in detail
- Explain the steps for creating a CI pipeline for the team service
- What is Microservice? Explain the microservice ecosystem.
- Explain the process of Continuous Integration with Circleci.
- What is Docker? Explain the Docker terminology.

Q4. Attempt the three of the following.

15 Marks

- How to discovering and Advertising Asp.Net core services.
- What are the prerequisites are used for running the samples.
- How to build cloud native application?
- Explain the CQRS pattern in detail.
- Write down the requirements for an event-sourced system

Q5. Attempt the three of the following.

15 Marks

- How to configure Microservices Ecosystem?
- Explain the term encryption for application in cloud.
- How to utilize Cloud messaging provider?
- How to dispose synchronous composite pattern?
- Explain the web socket protocol in detail.
