

(2½ 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 any two of the following.**

**12 Marks**

- What is the API Gateway pattern?
- Write down the Drawbacks of the API Gateway pattern.
- Explain Micro Service
- Describe different types of Micro Services.

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

**12 marks**

- What Kubernetes provides you with?
- What is the Advantages of AKS?
- Explain Monolithic Architecture
- What is Azure Stack?

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

**12 marks**

- What do you mean by Microsoft Azure Platform
- What are the different components of DevOps? Explain each in brief
- Which point must be considered while customizing process and publish on Azure.
- How you can use GitHub repository. Explain and demonstrate yourself

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

**12marks**

- Explain flow of a build on feature branch.
- Explain the various steps of build.
- Explain Categories of automated testing.
- Explain the sequence of events in DevOps Pipeline.

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

**12 marks**

- Explain the API value chain?
- State and explain some of the most considerations for developing a good API?
- Write a short note on API standards?
- Write a short note on Authentication and authorization?

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