# B.E. (Information Technology)
## INTRODUCTION TO DEVOPS
### (2019 Pattern) (Semester-VII) (Elective-IV) (414445 B)

*Time : 2½ Hours]*          *[Max. Marks : 70*

**Instructions to the candidates:**

1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
2) Neat diagrams must be drawn wherever necessary.
3) Figures to the right side indicate full marks.
4) Assume suitable data, if necessary.

**Q1)** a) Define continuous integration? Explain benefits of continuous integration. **[5]**

     b) Compare continuous delivery and continuous deployment. **[5]**

     c) Draw a diagram to visualize CI/CD pipeline and explain all stages in detail. **[8]**

### OR

**Q2)** a) Write a note on code repository server. **[5]**

     b) Explain role of continuous integration server. What operations a CI server can executes? **[5]**

     c) What are strategies for continuous delivery? **[8]**

**Q3)** a) Explain integration testing with the help of example. **[6]**

     b) Draw and explain basic deployment pipeline. **[6]**

     c) Explain the changes moving through the deployment pipeline in DevOps. **[5]**

### OR

**Q4)** a) Comment on Trade-offs in the deployment pipeline. **[6]**

     b) List and explain the strategies which are useful to manage defects list? **[6]**

     c) Write a short note on the Commit Stage. **[5]**

**Q5)** a) What is a Monitoring System? Explain Factors involved in the Monitoring System. **[6]**

b) List and explain tools used for monitoring? Explain its use **[6]**

c) Explain the Roles and responsibilities of an SRE. **[6]**

## OR

**Q6)** a) Write a short on white box and black box monitoring. **[6]**

b) What is Behavior-Driven Monitoring? How it works? **[6]**

c) What does a site reliability engineer do? List Common tools used by SREs with example. **[6]**

**Q7)** a) How do you maintain version control? What are the benefits of using version control? **[6]**

b) Write a note on Prometheus **[6]**

c) Explain continuous delivery in Jenkins? **[5]**

## OR

**Q8)** a) Explain serverless architecture in Kubernetes? **[6]**

b) Write a short note on Docker **[6]**

c) Explain continuous Testing with Selenium **[5]**

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