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

Time : 2½ Hours]   *[Max. Marks : 70*
Instructions to the candidates:
1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Assume Suitable data if necessary.*

Q1) a) What is continuous integration and does it have any impact on quality of product elaborate? **[6]**

b) List down different continuous delivery strategies and its benefits. **[6]**

c) Discuss the steps of build in CI/CD system from initiation to release of Project. **[6]**

OR

Q2) a) Explain what technology changes are required in the development tool chain to enable DevOps? **[6]**

b) How the use of DevOps pipeline phases does improve performance?**[6]**

c) What is a continuous integration and delivery in pipeline? Does it pay off? **[6]**

Q3) a) Differentiate between Continuous Delivery and Continuous Deployment. **[5]**

b) Elaborate in details what are the steps involved in managing defect backlog? **[4]**

c) What are different type of test in continuous deployment and how do we implement testing strategy for it? **[8]**

OR

Q4) a) Discuss tradeoffs in deployment pipeline. **[5]**

b) How many stages do we have in deployment pipeline? Explain. **[4]**

c) Write a Short note on : **[8]**
   i) Automated Acceptance Test Gate
   ii) Integration Testing

P.T.O.

Q5) a) Write down the factors involved in monitoring systems. Why monitoring is important explain? **[6]**

b) Who is SRE? What are the common tools used by SRE? **[6]**

c) Write a short note on behavior driven monitoring. **[6]**

OR

Q6) a) Elaborate the steps involved in logging and creation of the dashboard.**[6]**

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

i) White box monitoring

ii) Black-box monitoring

c) Write about building monitoring system and monitoring infrastructure. **[6]**

Q7) a) What is a Docker? Why should we use Docker? What does it offer? **[6]**

b) Explain various tools for bug tracking and why do we use them? **[6]**

c) Which tool is mostly used in DevOps? Write a Short note about one tool. **[5]**

OR

Q8) a) Illustrate the use of containers while creating container-based application design. Explain various containers used in relation with DevOps. **[6]**

b) List various version control tools and write their comparison. **[6]**

c) Explain continuous testing and tools used for it. **[5]**

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