

CODE: A30527

R19 / R20

H.T.No: 2 0 A 2 1 A 0 5 6 3

G.PULLAIAH COLLEGE OF ENGINEERING AND TECHNOLOGY
(AUTONOMOUS)

B.Tech III Year II Semester Regular Examinations MAY 2023

Subject Name: **DevOps**

Branch: Computer Science and Engineering

Time: 3 Hours

Max. Marks: 60

Instructions:

1. Answer all 5 questions from Part-A. Each question carries two marks
2. Answer one full question from each unit in Part-B. Each full question carries 10 marks

PART-A

- | | | | | | |
|---|---|--|----|-----|----|
| 1 | a | What are the advantages and Disadvantages of DevOps? | 2M | CO1 | L1 |
| | b | List out any five Git commands? | 2M | CO2 | L2 |
| | c | List out the objectives of Jenkins management page. | 2M | CO3 | L2 |
| | d | What are the uses of Kubernetes registry? | 2M | CO4 | L1 |
| | e | What are Jinja templates in Ansible? | 2M | CO5 | L1 |

PART-B**UNIT-I**

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|---|---|--|----|-----|----|
| 2 | a | Explain in detail about SDLC. | 5M | CO1 | L1 |
| | b | In what way DevOps and agile are inter related | 5M | CO1 | L2 |

OR

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|---|---|---|----|-----|----|
| 3 | a | Elaborate the Source code Management in DevOps? | 5M | CO1 | L2 |
| | b | Explain the different Phases of agile model? | 5M | CO1 | L2 |

UNIT-II

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|---|---|--|----|-----|----|
| 4 | a | Software configuration management has a workflow. Explain it in detail capturing all the activities in relation to DevOps release management plan. | 5M | CO2 | L2 |
| | b | Discuss in detail about version control and Git? | 5M | CO2 | L2 |

OR

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|---|--|--|----|-----|----|
| 5 | | Explain in detail about GitHub flow and how it works with example. | 5M | CO2 | L2 |
|---|--|--|----|-----|----|

UNIT-III

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|---|--|--|-----|-----|----|
| 6 | | Explain about Build Orchestration using Jenkins automation server. | 10M | CO3 | L1 |
|---|--|--|-----|-----|----|

OR

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|---|---|---|----|-----|----|
| 7 | a | Discuss the components of pipeline in build automation? | 5M | CO3 | L2 |
| | b | Explain in detail about the roles and responsibilities of node and agent? | 5M | CO3 | L1 |

UNIT-IV

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|---|--|---|-----|-----|----|
| 8 | | What are Helm charts in Azure? Discuss about Helm chart for Microsoft azure pipeline. | 10M | CO4 | L2 |
|---|--|---|-----|-----|----|

OR

- 9 a Justify the term "every change is automatically deployed to the Development environment". 5M CO4 L5
b What are the steps for continuous delivery in DevOps? 5M CO4 L1

UNIT-V

- 10 a Discuss about the major features of Docker? 5M CO5 L2
b Illustrate about every change is automatically deployed to Production with example. 5M CO5 L2

OR

- 11 Describe the Roles, Ansible tasks and deployment using Ansible. 10M CO5 L2
