

Code No: 156FB

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, July - 2023

DEVOPS

(Computer Science and Engineering – Artificial Intelligence and Machine Learning)

Time: 3 Hours

Max. Marks: 75

- Note:** i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) What is ITIL? [2]
- b) Explain about a complete example of DevOps process. [3]
- c) What is coupling? [2]
- d) What is a Liquibase changelog file? Explain. [3]
- e) Define Git server. [2]
- f) What is the need for source code control? [3]
- g) What is Maven tool? [2]
- h) Explain about triggers. [3]
- i) Define performance testing. [2]
- j) Discuss about deploying with Chef. [3]

PART – B**(50 Marks)**

- 2.a) Write brief introduction on DevOps.
 - b) Explain about the revision control system and the build server. [5+5]
- OR**
- 3.a) Describe Scrum, Kanban, and the delivery pipeline in detail.
 - b) Discuss about agile development model. [5+5]
- 4.a) What is the pom.xml file? Explain in detail.
 - b) Explain about three-tier systems in detail. [5+5]
- OR**
- 5.a) Discuss about the monolithic scenario.
 - b) What are 7 c's of DevOps lifecycle for business agility? Explain. [5+5]
- 6.a) Give the comparison between Git and GitLab.
 - b) How to choose a branching strategy? Explain in detail. [5+5]
- OR**
- 7.a) Describe the history of source code management.
 - b) Explain about artifact version naming in detail. [5+5]

- 8.a) Discuss about build servers and infrastructure as code.
b) Why do we build code? Explain the faces of build systems. [5+5]

OR

- 9.a) What are Jenkins plugins? Explain.
b) Discuss about collating quality measures. [5+5]

10. Explain the following:
a) JavaScript testing
b) Deploying with SaltStack. [5+5]

OR

11. Explain the following:
a) Virtualization stacks
b) Automated acceptance testing. [5+5]

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Used Paper July/Aug-2023