**INFORMATION TECHNOLOGY DEPARTMENT**

**EXPERIMENT LIST**

**SEM- TEIT/SEM V SUBJECT- DEVOPS LAB**

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| **Exp No** | **Exp. Name** |
| 1 | To understand DevOps: Principles, Practices, and DevOps Engineer Role and Responsibilities. |
| 2 | To understand Version Control System / Source Code Management, install git and create a GitHub account. |
| 3 | To Perform various GIT operations on local and Remote repositories using GIT Cheat-Sheet |
| 4 | To understand Continuous Integration, install and configure Jenkins with Maven/Ant/Gradle to setup a build Job. |
| 5 | To Build the pipeline of jobs using Maven / Gradle / Ant in Jenkins, create a pipeline script to Test and deploy an application over the tomcat server. |
| 6 | To understand Jenkins Master-Slave Architecture and scale your Jenkins standalone implementation by implementing slave nodes. |
| 7 | To Setup and Run Selenium Tests in Jenkins Using Maven. |
| 8 | To understand Docker Architecture and Container Life Cycle, install Docker and execute docker commands to manage images and interact with containers. |
| 9 | To learn Dockerfile instructions, build an image for a sample web application using Dockerfile. |
| 10 | To install and Configure Pull based Software Configuration Management and provisioning tools using Puppet. |
| 11 | To learn Software Configuration Management and provisioning using Puppet Blocks(Manifest, Modules, Classes, Function) |
| 12 | To provision a LAMP/MEAN Stack using Puppet Manifest. |

**Prof. Smita Pai Dr. Vaishali Khairnar**

**Lab Inchrge/Instructor Hod-IT**