**Birla Institute of Technology & Science, Pilani**

**Work-Integrated Learning Programmes Division**

**Second Semester 2023-2024**

**Mid-Semester Test**

**(EC-2 Regular)**

Course No. : CSI ZG514

Course Title : INTRODUCTION TO DEVOPS

Nature of Exam : Closed Book

Weightage : 30%

No. of Pages = 2

# No. of Questions = 4

Duration : 2 Hours

Date of Exam : Sunday, 17/03/2024 (EN)

Note:

1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.

Question 1 (8M)

1. What are the dimensions of DevOps? How does it help to realize DevOps? Explain the role of Agile methodologies for effective DevOps. (1+2+2M)
2. Discuss the pros and cons of distributed vs centralized Source Code Management tool. (3M)

Question 2 (7.5M)

1. Tool Selection plays a vital role in the success of your project especially when you work with DevOps. Make sure you know what it means for a tool to be considered successful for DevOps. Justify your suggestions in considering successful tool selection . (4M)
2. Culture can and do influence each other throughout the lifecycle of an organization. Elucidate how these interactions can help both improve your culture and make your tool usage more effective. (3.5M)

Question 3 (6.5M)

1. Explain the following commands in detail. (2.5M)
2. Git rebase
3. Git merge
4. Git checkout -b
5. Git pull
6. Git revert
7. Please explain the misconceptions below about DevOps. (4M)
8. DevOps is automation.
9. DevOps is the team name.

Question 4 (8M)

1. An IT company offers CRM software as a service solution for small businesses. As they moved into SaaS model, they want to build continuous integration capability so that they can make releases at least twice in a week. What is the bare minimum three things required to start continuous integration? Please also highlight different types of tests that need to be part of automated test suite (4M)
2. In GIT how do you settle conflicts. (4M)