Semester V

END-TERM
ANNOUNCEMENT

Course Title: DevOps Tools Internals   **Course Code:** CSE3046

Instructor In-Charge: Ms. Namrata Das

Time: 09:00AM-10:40AM   Date: **23-01-2024 (Tuesday)**   **Total Marks: 50**

ENDTERM portions for the course *DevOps Tools Internals(CSE3046)* are as follows:

Module:1: Introduction to DEVOPS and GIT Operations   **[Blooms 'level selected:** Apply]
Software development methodologies- Waterfall Vs Agile, Scrum, DevOps – Introduction, Culture and Practices, Architecture, Lifecycle, DevOps Tools Overview.
Version Control With Git - Git vs GitHub, Understanding the Git Process installing git on Windows and Configuration, Git Vocabulary,Basic, Git Commands-staging and commits, inspecting changes, branching and merging, collaborating,

Module: 2: Docker   **[Blooms 'level selected:** Apply]
Hypervisor vs Docker, Docker Concepts - Registry, Repository, Tag, Image and Containers, Docker Life Cycle,Docker Installation, Docker Operations, Pulling Docker Images and Spinning Containers, Creating Dockerfiles, Building Images andPushing To Container Hub

Module: 3: Ansible   **[Blooms 'level selected:** Apply]
Understanding Configuration management using Ansible, Push-based vs Pull-based Architecture, Installation with script, Ansible Artifacts- host, inventory, playbook, Concepts of Playbooks, Plays and Modules, YAML, Ansible Tower, Ansible Pip, Ansible vs Chef, Ansible Vault

Module: 4: Jenkins   **[Blooms 'level selected:** Apply]

Introduction To Continuous Integration and Continuous Delivery(CI/CD),, Jenkins Architecture, Installing and Configuring Jenkins , Configuring and Managing jobs On Jenkins, Jenkins Master-Slave Architecture, Delegating Job from Master to Agent Node, Jenkins Integration With Devops Tools, Understanding CI/CD Pipeline, Creating A CI/CD Pipeline

Question Paper Format

Question Paper consists of Three Parts. **Part A & B**		TOTAL MARKS: 50
Part A	Descriptive type questions	4Q x 5M = 20 Marks
Part B	i. Experiment 1 - only execution	15 Marks
	ii. Experiment 2 - only write up	15 Marks

Signature of Instructor In-Charge

Namrata Das

Ms. Namrata Das