Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal School of Information Sciences (MSIS), Manipal
Second Semester Master Engineering - ME (Big Data Analytics) - Degree Examination - June 2022

DevOps for Cloud [CDC 5001]

Marks: 100   **Duration: 180 mins.**

Thursday, June 23, 2022

Answer all the questions.

1)	Compare and Contrast following software methodologies a) Agile methodology b) Waterfall model (TLO 1.1) (5 + 5 MARKS)	(10)
2)	Briefly explain Devops life cycle stages and tools with suitable block diagram (TLO 2.1) (8 + 2 MARKS)	(10)
3)	Briefly explain architecture and features of Git (TLO 3.1) (10 MARKS)	(10)
4)	Briefly explain Master and Slave architecture of Jenkins and its advantages (TLO 4.1) (10 MARKS)	(10)
5)	Briefly explain how to setup CI/CD Pipeline using Jenkins to deploy Web application (TLO 5.1) (10 MARKS)	(10)
6)	Briefly explain components of Docker and also illustrate workflow of Docker in CI/CD Pipeline (TLO 7.1) (10 Marks)	(10)
7)	Briefly explain how to start Apache, Php and Mysql containers together to deploy a Wordpress application using Docker (TLO 6.2) (10MARKS)	(10)
8)	Briefly explain architecture of Kubernetes cluster and also comment on Deployment and Services as part of Kubernetes. (TLO 8.2) (6 + 4 MARKS)	(10)
9)	Briefly explain the architecture and Features of Ansible with suitable block diagram (TLO 8.3) (10 MARKS)	(10)
10)	Briefly explain an Architecture of Nagios - Continuous Monitoring tool and its Features (TLO 7.2) (10 MARKS)	(10)

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