Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL SCHOOL OF INFORMATION SCIENCES, MANIPAL
FIRST SEMESTER MASTER OF ENGINEERING - ME (CLOUD COMPUTING) DEGREE EXAMINATION - FEBRUARY 2021

DevOps for Cloud [CDC-607]

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

MONDAY, FEBRUARY 15, 2021

Answer all the questions.

1)	What is Devops and with suitable example explain how does it address problems in software product life cycle (TLO 1.2) (10 MARKS)	(10)
2)	Briefly explain the stages of Devops and also list corresponding tools used in those stages (TLO 1.3) (8 + 2 MARKS)	(10)
3)	Explain the following Git commands a) git add . b) git clone < github.url> c) git push origin master d) git revert < commitid> e) git diff HEAD filename (TLO 4.3) (2 * 5= 10 MARKS)	(10)
4)	Briefly explain Continuous Integration and Continuous Deployment stages of Devops with suitable example (TLO 5.1) (5 + 5 MARKS)	(10)
5)	Briefly explain how to setup CI/CD Pipeline using Jenkins to deploy Nodejs web application (TLO 5.4) (10 MARKS)	(10)
6)	Briefly explain need of Docker volumes and also comment on its types and implement Docker volumes (TLO 6.7) (10 Marks)	(10)
7)	Write a snippet of Docker compose file to start multiple containers as part of 3 tier Architecture of web application. (TLO 6.8) (10 MARKS)	(10)
8)	Briefly explain with suitable example to Deploy and expose Containerized app as service on Kubernetes (TLO 6.9) (10 MARKS)	(10)
9)	Write an Ansible playbook to deploy LAMP server on Ubuntu machine (TLO 6.12) (10 MARKS)	(10)
10)	Briefly explain with suitable diagram how to monitor remote host using Nagios and also comment on how to create services to monitor metrics of Server. (TLO 6.16) (6 + 4 MARKS)	(10)

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