UPES
End Semester Examination, May 2024

Course: System Provisioning and Configuration Management **Semester: VI**
Program: B. Tech. CSE spl. in DevOps **Time   : 03 hrs.**
Course Code: CSDV 3012 **Max. Marks: 100**

Instructions:
1. All the questions are compulsory.
2. The question paper consists of 11 questions and it is divided into four sections A, B and C.
3. Section A comprises of 5 questions carrying 4 marks each.
4. Section B comprises of 4 questions carrying 10 marks each.
5. Section C comprises of 2 questions carrying 20 marks each.

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Identify and classify the core benefits of DevOps in software development.	4	CO1
Q 2	Explain the role of configuration management in DevOps by analyzing its impact on the deployment process.	4	CO3
Q 3	Define cloud computing and identify popular cloud service providers.	4	CO1
Q 4	Define cloud automation and classify the benefits of cloud automation.	4	CO2
Q 5	Define continuous integration (CI) and continuous deployment (CD) as practices in software development.	4	CO3

SECTION B
(4Qx10M= 40 Marks)

Q 6	Explain the concept of "Infrastructure as Code" (IaC) within the context of Configuration Management.	10	CO1
Q 7	Differentiate and discuss various types of service models used in cloud computing.	10	CO1
Q 8	Discuss the utilization of cloud automation in IT operations by categorizing its applications and benefits.	10	CO2
Q 9	Discuss the various types of cloud migration strategies used in IT transformations by categorizing their approaches and advantages. OR Define microservices and describe how microservices operate within a system	10	CO3

	SECTION-C **(2Qx20M=40 Marks)**		
Q 10	Discuss various methods for preventing errors in DevOps.	**20**	**CO2**
Q 11	Specify the reasons and challenges associated with selecting and implementing provisioning and configuration tools based on organizational requirements. OR Define Ansible and explain its architecture that supports automation and configuration management in IT environments.	**20**	**CO3**