


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: IT infrastructure automation Program: B.Tech CS with IT Infrastructure Course Code: CSIT 3014		Semester: VI Time: 03 hrs. Max. Marks: 100	
Instructions: Answer all the questions			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Explain the workflow of the automation tool including input and process control	4M	CO1
Q 2	Describe the Infrastructure as a code with a YAML configuration file	4M	CO1
Q 3	List the essential elements of the ansible-playbook	4M	CO2
Q 4	Demonstrate the inventory file's host, and group variables	4M	CO3
Q 5	Discriminate between ansible inventory and module	4M	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	List the various file test operators that are used to check the various conditions on the files and demonstrate them with shell script.	10M	CO1
Q 7	Describe the ansible environment's characteristics	10M	CO2
Q 8	Develop a script to limit the number of hosts that can perform multiple tasks in a single playbook. <p style="text-align: center;">Or</p> Develop a script to limit the number of tasks that can be performed on a specific host in a single playbook.	10M	CO3
Q 9	Demonstrate the modules that support argument passing and explain the ad-hoc commands for the user, authorized_key, and copy the file.	10M	CO2

SECTION-C
(2Qx20M=40 Marks)

Q 10	i. Demonstrate how to handle errors in ansible playbooks and construct the changed_when keyword script. ii. Describe and illustrate various storage related activities enabled by the ansible modules using script.	10+10 M	CO3
Q 11	Construct the PXE environment by collecting the necessary components, such as DHCP and xinted servers. Then, conduct the automatic installation by configuring NFS sources by creating the automation configuration file. <p style="text-align: center;">Or</p> Create a bash shell script to create a user account by using the data format provided and verifying the various conditions such as user account already exists, UID and GID requested are already allocated, UID and GID requested is not part of the reserved by system, and whether the user data to be read from a file.	20M	CO1