UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May 2020

Course: IT Infrastructure Automation   Semester: VI
Program: B.TECH CS with Infrastructure Management   Time: 03 hrs.
Course Code: CSIT 3014   Max. Marks: 100

SECTION A
Instruction: complete the statement or select the correct answer(s)

S. No.		Marks	CO
Q 1	i. How many types of Cloud are there in Deployment Models? a. 2 b. 3 c. 4 d.5 ii. kickstart installation methods are suitable for large environments [True/False]	**5**	**CO1**
Q 2	i. Ansible uses the _____ protocol to push the commands; no custom security configurations are required. a. SSH b. SCP c. SFTP d. None ii. The first line in any shell script begins with a _____ a. & b.! c.# d. $	**5**	**CO1**
Q 3	Discriminate the plugin and module in a single statement	**5**	**CO2**

Q 4	i. JSON is a programming language. [True/False]
	ii. Which of the following statement is true for JSON return?
	   a. json.loads () takes in a string and returns a json object. json.dumps () takes in a json object and returns a string.
	   b. json.loads () takes in a json object and returns a json object. json.dumps () takes in a json object and returns a string.
	   c. json.loads () takes in a string and returns a json object. json.dumps() takes in a string and returns a string
	   d. All
		5	**CO3**

Q 5	i. Ansible Galaxy is
	   a. $ ansible-galaxy username.role_name
	   b. $ ansible-galaxy install username.role_name
	   c. $ galaxy install username.role_name
	   d. None
	 ii. YAML uses tabs for indentation [True/False]
		5	**CO3**

Q 6	i. which is the correct format for writing JSON name/value pair
	   a. 'name: value' b.name='value' c.name="value" d. "name":" value"
	ii. What is the output? S='Ansible is a configuration management Tool' print(S[:6])
	   a. Ansibl b. Ansible c. nsible d. none
		5	**CO3**

	SECTION B		
Instruction : Write short/brief notes			
Q 7	Describe the different strategies to install the Operating System on a new physical or virtual server and list their pros and cons	**10**	**CO1**
Q 8	Compare and contrast the different configuration management tools used in IT Automation or Write a shell script to find out the unique words in a file, count the occurrence of each of these words and count total words in the file. Hint: create a file that contains city names in many lines, and each line has multiple words.	**10**	**CO1**
Q 9	Describe the Architecture of the Ansible and explain its architectural components with appropriate examples.	**10**	**CO2**
Q 10	Discuss the error handling in playbooks and write the script for the ignore_errors keyword with Ansible playbooks.	**10**	**CO3**
Q 11	Write the script for providing the details of creating, removing partitions, and display the partitions details using the parted module.	**10**	**CO3**
	SECTION C		
Instruction: Write a long answer.			
Q 12	Gathering the requirements for the application installations and verifying the CPU capabilities, Memory requirements, software dependency using virtual box and vagrant software, and developing the installation code using a script for virtual box and vagrant software version. or Gathering the requirements for setting up PXE environment i.e., TFTP and xinetd servers. Setting up NFS sources as an installation source for the automated installation process and creating a configuration file for automated installation.	**20**	**CO2**