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## B.Tech DEGREE EXAMINATION, NOVEMBER 2023

Sixth & Seventh Semester

### 18CSE316J - ESSENTIALS IN CLOUD AND DEVOPS

(For the candidates admitted during the academic year 2020 - 2021 & 2021 - 2022)

**Note:**

- i. **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40<sup>th</sup> minute.
- ii. **Part - B** and **Part - C** should be answered in answer booklet.

**Time: 3 Hours**

**Max. Marks: 100**

#### PART - A (20 × 1 = 20 Marks)

Answer all Questions

Marks BL CO

- |                                                                                                                                                              |                                                                                             |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------|
| 1. Choose among the following, which are not related to the services provided by the cloud.<br>(A) Reliability<br>(C) Ownership                              | (B) Sourcing<br>(D) Iaas                                                                    | 1      1      1 |
| 2. Choose the correct relationship between cloud services and customers.<br>(A) One-One<br>(C) Many-One                                                      | (B) One-Many<br>(D) Many-Many                                                               | 1      1      1 |
| 3. What is the meaning of region in AWS?<br>(A) A region is a geographical area or collection of data centers.<br>(C) A region is the endpoint for AWS.      | (B) A region is an isolated logical data center<br>(D) A region is the physical data center | 1      1      1 |
| 4. What capacity of files can you store in S3?<br>(A) 0 bytes- 100 TB<br>(C) 0 bytes- 5 TB                                                                   | (B) 0 bytes- 50 TB<br>(D) 0 bytes- 25 TB                                                    | 1      1      1 |
| 5. _____ option is used when we need to match multiple patterns in a single invocation of the grep command.<br>(A) -e<br>(C) -a                              | (B) -n<br>(D) -i                                                                            | 1      2      2 |
| 6. which positional parameters is used to list all the positional parameters?<br>(A) \$O<br>(C) \$*                                                          | (B) \$#<br>(D) \$@                                                                          | 1      1      2 |
| 7. If you apply a chmod operation to a file, what will happen?<br>(A) The file's last change time is updated.<br>(C) File last modification time is updated. | (B) The file's last accessed time is updated.<br>(D) File Access modification updated       | 1      3      2 |
| 8. Which of the following are used to redirect stdout and stderr to a file?<br>(A) <&<br>(C)  &                                                              | (B) >&<br>(D) &&                                                                            | 1      2      2 |
| 9. Identify the command to delete all the cloud resources built by the previous Terraform apply command.<br>(A) terraform undo<br>(C) terraform delete       | (B) terraform remove<br>(D) terraform destroy                                               | 1      1      3 |
| 10. Which command will update the terraform file indentation?<br>(A) init<br>(C) fmt                                                                         | (B) validate<br>(D) apply                                                                   | 1      1      3 |

11. Ansible is based on (A) Pull based (C) Agent based	(B) Idempotency (D) Inconsistency	1	2	3
12. Which of the below is used to store the output of a task in a variable in Ansible? (A) Debug (C) Register	(B) Handler (D) Tag	1	2	3
13. Which of the following commands can run the application in a container? (A) Docker run (C) Docker start	(B) Run (D) Start	1	1	4
14. Which of the following commands will you use to list your containers? (A) Docker list (C) Docker Ps -a	(B) Docker Ps (D) Docker_container_list	1	1	4
15. Replication Controllers and Deployment Controllers are part of (A) Etd manager (C) API Controller Manager	(B) Kubeadm (D) Master Controller Manager	1	2	4
16. There are... types of pods in Kubernetes? (A) 1 (C) 3	(B) 2 (D) 4	1	2	4
17. Which of the following is not a part of the DevOps lifecycle? (A) Operating (C) Build	(B) Plan (D) Code	1	1	5
18. What is the use of Git? (A) Containerization tool (C) Version Control System tool	(B) Continuous Integration tool (D) Continuous Monitoring tool	1	1	5
19. DevOps is an extension of _____ (A) Scrum (C) Water fall model	(B) Scrum Master (D) Agile	1	2	5
20. Which of the following is not a feature of continuous delivery? (A) Gathering Requirement. (C) Continuous Improvement	(B) Automate Everything (D) Bug Fixes	1	1	5

**PART - B (5 × 4 = 20 Marks)**

Answer **any 5** Questions

	Marks	BL	CO
21. Differentiate Iaas with Paas.	4	2	1
22. Discuss about S3 object storage in AWS.	4	2	1
23. Define the Chmod command in Linux with any of its two options.	4	1	2
24. List all the Terraform CLI Commands	4	1	3
25. How do you start, stop, and kill containers in Docker?	4	1	4
26. Summarize the concept of nodes in Kubernetes.	4	2	4
27. Discuss about the role of configuration management in DevOps.	4	2	5

**PART - C (5 × 12 = 60 Marks)**

Answer **all** Questions

	Marks	BL	CO
28. (a) Explain in detail the various cloud deployment models with examples. (OR) (b) Explain about any four AWS Services.	12	2	1

29. (a) List and explain any six Linux commands with examples. 12 1 2  
(OR)  
(b) Elaborate on Grep command and its various options.
30. (a) Differentiate the details of Terraform and Ansible. 12 2 3  
(OR)  
(b) Write an ansible playbook to install and start an Nginx server with necessary steps.
31. (a) List and explain the various Docker components in detail. 12 1 4  
(OR)  
(b) Explain the various K8's services running on the nodes of the Kubernetes and describe the role of each service.
32. (a) Discuss in detail about the role of CI/CD in DevOps. 12 2 5  
(OR)  
(b) Explain in detail any version control and continuous integration tools for DevOps.

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