

Reg. No														
---------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

## B.Tech DEGREE EXAMINATION, NOVEMBER 2023

Seventh Semester

### 18CSE441T - CLOUD APPLICATION DEVELOPMENT

(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

- |  |   |
|--|---|
| <p>1. Which three types of cloud computing services are the most common?</p> <p>(A) Infrastructure as a Service, Platform as a Service, and Software as a Service</p> <p>(C) Infrastructure as a Service, Platform as a Program, and Software as a Service</p> <p>2. What are the advantages of cloud computing?</p> <p>(A) Increased security and data privacy</p> <p>(C) Cost savings and scalability</p> <p>3. What distinguishes public from private cloud computing?</p> <p>(A) Public cloud computing is more secure than private cloud computing</p> <p>(C) Public cloud computing is more expensive than private cloud computing</p> <p>4. What is serverless computing's key advantage?</p> <p>(A) Cost savings</p> <p>(C) Improved security</p> <p>5. ZooKeeper's architecture supports high _____ through redundant services.</p> <p>(A) flexibility</p> <p>(C) availability</p> <p>6. Identify the messaging pattern in which the senders of the message are not programmed to send their messages to specific receivers.</p> <p>(A) Remote Procedure call</p> <p>(C) Request/Response</p> <p>7. Which of the following is not a major cloud computing platform?</p> <p>(A) Microsoft Azure</p> <p>(C) IBM Deep Blue</p> <p>8. The load balancer..... is more advanced.</p> <p>(A) workload managers</p> <p>(C) workspace managers</p> | <p>1 2 1</p> <p>1 1 1</p> <p>1 2 1</p> <p>1 2 1</p> <p>1 4 2</p> <p>1 4 2</p> <p>1 2 2</p> <p>1 2 2</p> |
| <p>(B) Infrastructure as a Service, Program as a Service, and Software as a Service</p> <p>(D) Infrastructure as a Service, Platform as a Program, and Software as a Solution</p> <p>(B) Better performance and faster processing</p> <p>(D) More control over hardware and software resources</p> <p>(B) Private cloud computing is only accessible to a single organization, while public cloud computing is available to anyone</p> <p>(D) Private cloud computing is more scalable than public cloud computing</p> <p>(B) Increased scalability</p> <p>(D) Faster processing</p> <p>(B) scalability</p> <p>(D) interactivity</p> <p>(B) Remote method invocation</p> <p>(D) Publish/Subscribe</p> <p>(B) Amazon EC2</p> <p>(D) Google 101</p> <p>(B) rackserve managers</p> <p>(D) workload and workspace managers</p>   |   |

- |  |   |   |   |
|--|---|---|---|
| 9. What are the drawbacks of cloud computing?  | 1 | 2 | 3 |
| (A) Excellent accessibility  |   |   |   |
| (B) Limited Control  |   |   |   |
| (C) Unlimited storage capacity   |   |   |   |
| (D) Low maintenance cost   |   |   |   |
| 10. There is a type 1 hypervisor, which is   | 1 | 4 | 3 |
| (A) KVM  |   |   |   |
| (B) Wind River Simics  |   |   |   |
| (C) LynxSecure   |   |   |   |
| (D) Virtual Server 2005 R2   |   |   |   |
| 11. Which HTTP method do the REST use to make an HTTP request to update an existing resource?  | 1 | 5 | 3 |
| (A) POST   |   |   |   |
| (B) PUT  |   |   |   |
| (C) UPDATE   |   |   |   |
| (D) DELETE   |   |   |   |
| 12. Which of the following techniques allows numerous businesses or clients to share a single physical instance of an application or its resources?  | 1 | 4 | 3 |
| (A) Virtualization   |   |   |   |
| (B) Service-Oriented Architecture  |   |   |   |
| (C) Grid Computing   |   |   |   |
| (D) Utility Computing  |   |   |   |
| 13. Choose the virtualization technique that installs the Virtual Machine as a Type 1 Hypervisor on the hardware.  | 1 | 4 | 4 |
| (A) Para virtualization  |   |   |   |
| (B) Full Virtualization  |   |   |   |
| (C) Emulation  |   |   |   |
| (D) Operating System based   |   |   |   |
| 14. Identify the term that defines a situation where any existing security threat in the cloud spreads more rapidly and has a larger impact than that in the traditional data center environments. | 1 | 5 | 4 |
| (A) Data privacy   |   |   |   |
| (B) Velocity-of-attack   |   |   |   |
| (C) Information assurance  |   |   |   |
| (D) Server security  |   |   |   |
| 15. -----includes servers, storage, networking, cloud management, deployment, and platform virtualization  | 1 | 2 | 4 |
| (A) Cloud infrastructure   |   |   |   |
| (B) Cloud Services   |   |   |   |
| (C) Cloud Storage  |   |   |   |
| (D) Cloud Technologies   |   |   |   |
| 16. Which of the following management processes aims to promptly restore Cloud services to users when unanticipated occurrences disrupt services or deteriorate service quality?                   | 1 | 4 | 5 |
| (A) Performance management   |   |   |   |
| (B) Availability Management  |   |   |   |
| (C) Capacity Management  |   |   |   |
| (D) Incident Management  |   |   |   |
| 17. Which of the following features helps EC2 sites scale?   | 1 | 4 | 5 |
| (A) Auto Replica   |   |   |   |
| (B) Auto Ruling  |   |   |   |
| (C) Auto Scaling   |   |   |   |
| (D) Auto Duplicate   |   |   |   |
| 18. What kind of computing can be employed to boost a cloud's capacity to handle momentary workload increases?   | 1 | 2 | 5 |
| (A) Grid computing   |   |   |   |
| (B) Surge computing  |   |   |   |
| (C) Utility computing  |   |   |   |
| (D) Nomadic Computing  |   |   |   |
| 19. What procedure is used in the cloud environment to split up large tables into smaller pieces that are dispersed across several servers?  | 1 | 2 | 5 |
| (A) Sharding   |   |   |   |
| (B) Splitting  |   |   |   |
| (C) Segmentation   |   |   |   |
| (D) Chunking   |   |   |   |
| 20. Choose a server computer that has been completely disassembled and has been modularly designed to consume as little energy and space as possible.  | 1 | 4 | 5 |
| (A) Stand-alone server   |   |   |   |
| (B) Blade server   |   |   |   |
| (C) Stateless server   |   |   |   |
| (D) Remote server  |   |   |   |

**PART - B (5 × 4 = 20 Marks)**

Answer **any 5** Questions

Marks BL CO

21. Sort all cloud application development services into categories	4	2	1
22. Write the significance of business drivers in cloud	4	2	1
23. List out the features of ZooKeeper?	4	4	2
24. How Virtualization works and explain the types of Virtualization techniques	4	4	3
25. Establishing security rules on an Amazon EC2 instance in the best possible way	4	3	3
26. Describe the application of the Hadoop Ecosystem and its various components.	4	3	4
27. Explain the features and types about Yahoo Mashups tools.	4	2	5

**PART - C (5 × 12 = 60 Marks)**

**Marks BL CO**

**Answer all Questions**

28. (a) Compare several cloud service models, including their advantages and disadvantages.	12	4	1
<b>(OR)</b>			
(b) Zones and Regions are necessary in Google cloud. Justify and describe the various services offered by Google Cloud Platform in it.			
29. (a) Explain the advantages of cloud computing and depict the cloud computing architecture.	12	5	2
<b>(OR)</b>			
(b) Give a brief explanation of ZooKeeper's work flow.			
30. (a) When should we use virtualization and what are the various approaches to virtualization?	12	4	3
<b>(OR)</b>			
(b) Compare the differences between grid and cloud computing and briefly describe the grid computing architecture.			
31. (a) Briefly describe the necessity, functionality, and advantages of Amazon S3	12	5	4
<b>(OR)</b>			
(b) What is resource provisioning in cloud? Illustrate different resource provisioning methods supported in cloud computing.			
32. (a) What core benefits do cloud computing applications offer for scientific applications?	12	5	5
<b>(OR)</b>			
(b) Give a brief description of the Aneka Application Model's key characteristics			

\* \* \* \* \*

