

**B.Tech DEGREE EXAMINATION, DECEMBER 2023**

### Fifth Semester

18CSE362J - CLOUD, MICROSERVICES AND APPLICATION

*(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)**

**Marks BL**

CO

### Answer all Questions

- |    |   |   |   |   |
|----|---|---|---|---|
| 1. | These cloud services are of the form of utility computing i.e. the _____ uses these services pay-as-you-go model.   | 1 | 1 | 1 |
|    | (A) Cloud providers   |   |   |   |
|    | (B) Clients   |   |   |   |
|    | (C) End users   |   |   |   |
|    | (D) Cloud users   |   |   |   |
| 2. | Which of the following is essential concept related to Cloud?   | 1 | 2 | 1 |
|    | (A) Reliability   |   |   |   |
|    | (B) Productivity  |   |   |   |
|    | (C) Abstraction   |   |   |   |
|    | (D) Security  |   |   |   |
| 3. | Which of the following cloud concept is related to pooling and sharing of resources?  | 1 | 2 | 1 |
|    | (A) Polymorphism  |   |   |   |
|    | (B) Abstraction   |   |   |   |
|    | (C) Virtualization  |   |   |   |
|    | (D) Resources Sharing   |   |   |   |
| 4. | _____ is a paradigm of distributed computing to provide the customers on-demand, utility based computing service.   | 1 | 3 | 1 |
|    | (A) Remote Sensing  |   |   |   |
|    | (B) Remote Invocation   |   |   |   |
|    | (C) Cloud Computing   |   |   |   |
|    | (D) Private Computing   |   |   |   |
| 5. | Which of the following component of HTTP request contains message content or Resource representation?   | 1 | 3 | 2 |
|    | (A) Request Body  |   |   |   |
|    | (B) URL   |   |   |   |
|    | (C) HTTP Version  |   |   |   |
|    | (D) Request Header  |   |   |   |
| 6. | Which REST Operation Group lists the operations for API Management provider?  | 1 | 1 | 2 |
|    | (A) API Management operations   |   |   |   |
|    | (B) API Management service  |   |   |   |
|    | (C) API operation   |   |   |   |
|    | (D) API schema  |   |   |   |
| 7. | Which of the following impose additional overhead on clients and offer faster transfer?   | 1 | 2 | 2 |
|    | (A) Block storage   |   |   |   |
|    | (B) File Storage  |   |   |   |
|    | (C) File Server   |   |   |   |
|    | (D) Block File  |   |   |   |
| 8. | Which one of the following is a kind of technique that allows sharing the single physical instance of an application or the resources among multiple organizations/customers? | 1 | 2 | 3 |
|    | (A) Virtualization  |   |   |   |
|    | (B) Service-Oriented Architecture   |   |   |   |
|    | (C) Grid Computing  |   |   |   |
|    | (D) Utility Computing   |   |   |   |
| 9. | Which one of the following methodologies does least impact the establishment of Devops methodology?   | 1 | 3 | 2 |
|    | (A) Agile Software Delivery   |   |   |   |
|    | (B) Waterfall Software Delivery   |   |   |   |
|    | (C) Lean Manufacturing  |   |   |   |
|    | (D) Continuous Software Delivery  |   |   |   |

10. Which of the following is not a feature of continuous delivery ?	1	2	3
(A) Continuous Improvement			
(B) Automate Everything			
(C) Bug fixes and experiments			
(D) Gathering Requirement			
11. Docker Machine manage virtual hosts that use _____	1	4	3
(A) Command line			
(B) Docker Datacenter			
(C) Graphical user interface			
(D) Docker Machine			
12. How you manage Docker images?	1	1	4
(A) Docker Hub			
(B) Docker Machine			
(C) Docker swarm			
(D) Docker Client			
13. Why does the name of local variables start with an underscore discouraged?	1	2	4
(A) To identify the variable			
(B) It confuses the interpreter			
(C) It indicates a private variable of a class			
(D) It indicates the public variable of a class			
14. What is the method inside the class in python language?	1	3	3
(A) Object			
(B) Function			
(C) Attribute			
(D) Argument			
15. What do we use to define a block of code in Python language?	1	1	5
(A) Key			
(B) Brackets			
(C) Indentation			
(D) Semicolon			
16. Which of the following is the correct extension of the Python file?	1	1	4
(A) .python			
(B) .pl			
(C) .py			
(D) .p			
17. Which of the following is a type of cloud computing service?	1	3	6
(A) Service-as-a-Software (SaaS)			
(B) Software-and-a-Server (SaaS)			
(C) Software-as-a-Service (SaaS)			
(D) Software-as-a-Server (SaaS)			
18. Applications and services that run on a distributed network using virtualized resources is known as _____	1	3	5
(A) Parallel computing			
(B) Soft computing			
(C) Distributed computing			
(D) Cloud computing			
19. Which architectural layer is used as a backend in cloud computing?	1	3	4
(A) Cloud			
(B) Soft			
(C) Client			
(D) Backend			
20. Which of the following is the most important area of concern in cloud computing?	1	3	6
(A) Scalability			
(B) Storage			
(C) Security			
(D) Privacy			

**PART - B (5 × 4 = 20 Marks)**

Answer **any 5** Questions

	Marks	BL	CO
21. List out the function of virtualization.	4	1	1
22. Write short notes on AWS lambda function	4	3	2
23. Discuss in detail about micro services Architecture.	4	2	3
24. Discuss in detail about cloud storage device.	4	3	3
25. Define cloud scaling and write about launch template	4	2	3
26. What is the difference between Lists and Tuples? Give an example for their usage.	4	3	4
27. What is an identity card? How do you use identity card to protect data?	4	4	5

**PART - C (5 × 12 = 60 Marks)**

Answer **all** Questions

		Marks	BL	CO
28.	(a) Briefly explain about cloud services models (OR) (b) Define multitenant technology and explain its features.	12	3	4
29.	(a) Compare monolithic and microservices architecture (OR) (b) List out the functions of API.	12	6	5
30.	(a) Discuss in detail about devops architecture. (OR) (b) Explain detail about kubernetes	12	4	4
31.	(a) What type of conditional structures are present in a programming language? How many of them are supported in Python? Explain each with example. (OR) (b) Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples.	12	5	5
32.	(a) Explain the iterative model of migration into the cloud? (OR) (b) Explain the fundamental requirement from the providers of cloud computing to allow virtual applications to freely migrate, grow, and shrink?	12	5	6

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