VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)
CHENNAI

Continuous Assessment Test (CAT) – I FEB 2024

Programme	: Master of Computer Applications	Semester	: Winter 23-24
Course Code & Title	: PMCA506L & Cloud Computing	Class Nbr	: CH2023240501395
Faculty	: Dr. Anusooya G	Slot(s)	: F2+TF2
Duration	: 1½ Hours	Max. Marks	: 50

General Instructions:

- Write only your registration number on the question paper in the box provided and do not write other information.
- Use statistical tables supplied from the exam cell as necessary
- Use graph sheets supplied from the exam cell as necessary
- Only non-programmable calculator without storage is permitted

Answer **ALL** the Questions

1	Indian Infoline Pvt. Ltd. (IIPL) is one of the leading players in the Indian financial services space. IIPL offers advice and execution platforms for the entire range of financial services. For a company with varied interests in financial services, it is necessary that it optimally maintain and streamline its IT infrastructure.
	IIPL also wanted to redirect the focus of precious human capital towards its core business, instead of running, maintaining and upgrading its IT operations.
	    a) Suggest and justify a suitable service model for IIPL. (8)
	    b) Identify, describe and justify the appropriate deployment model. (7)
		15

2	When Facebook launched in 2004, it changed the way people connect. Apps like Messenger, Instagram and WhatsApp further empower billions around the world. Now, Meta is moving beyond 2D screens toward immersive experiences like augmented, virtual and mixed reality to help build the next evolution in social technology.
	    a) Illustrate the infrastructure of the Meta data center. (10)
	    b) How energy efficient is the Meta data center? Elaborate. (5)
		15

3	What happens if the role of the cloud broker is not provided in the NIST-CCRA architecture? In your opinion is there any redundant actor in the architecture? Justify your answer. Explain in detail about service management by the cloud provider.	10

4	Alfa-Beta solutions are an IoT based firm that focus on the various services. The number of employees and physical resources for Alfa-Beta solutions hinder its next level expansion. Hence they decided to adopt virtualization based solutions.
	    a) Elaborate the effective role of VMs in handling the tasks allotted by Alfa-Beta solutions. (2)
	    b) If the allotted VM's for Alfa-Beta solution either fails or crashes, what could be the alternates? (3)
	    c) If the allotted VM1 for Alfa-Beta solution reaches maximum CPU utilization, what could be the alternate solution? (5)
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