PES University, Bengaluru
(Established under Karnataka Act No. 16 of 2013)

UE18CS521

DECEMBER 2021: END SEMESTER ASSESSMENT (ESA) B TECH/ M TECH _I_ SEMESTER

UE18CS521 – CLOUD COMPUTING FUNDAMENTALS

Time: 3 Hrs	Answer All Questions	Max Marks: 100

1	a)	What is Cloud Computing? (2) Define any 4 feature of cloud computing .Explain each in one or two sentence (4) Mention any 4 advantages of cloud computing..Explain each in one or two sentence (4)	10
	b)	What are Data Centers ?(2) Mention 4 types of Data Centers.(4) Explain any 4 Challenges in Data Centre.(4)	10
2	a)	What is Virtualization? (2) Explain type 1 and type 2 Virtual Machine diagrammatically. (4) Compare type 1 and type 2 Virtual Machine based on scalability, speed, performance, security. (4)	10
	b)	State 3 Theorem of Popek and Goldberg. (6). What are control sensitive instructions and behaviour sensitive instructions. Mention examples for each. (4)	10
3	a)	What is keystone (2) What is Identity service in Keystone. (1) Explain the following keystone concepts in one or two sentence. (7) i. Project ii. Domain iii. Users and User Groups iv. Roles v. Assignment vi. Tokens vii. Catalog	10
	b)	What is Cloud Scalability? Mention any 4 benefits of Cloud Scalability.	5
	c)	Explain the following with respect to Cloud Security Requirements. i. Cloud Time Service ii. Identity Management iii. Access Management iv. Break-Glass Procedures v. Key Management	5

4	a)	Mention any 6 differences between IaaS and PaaS	10
	b)	Write a note on Load balancer and its operation with help of a diagram.	10
5	a)	Mention any 4 advantages and 2 disadvantage of Multitenancy.	6
	b)	Mention any 8 differences between containers and VM	8
	c)	What is Kubernetes ? (2) Mention any Four Feature of Kubernetes (4)	6