

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MCA DEGREE EXAMINATION MAY 2025
(Second Semester)**

Branch – COMPUTER APPLICATIONS

MAJOR ELECTIVE COURSE – I: CLOUD ARCHITECTURE AND SERVICES

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which type of cloud is shared by several organizations with a common concern? a) Private cloud b) Public cloud c) Common cloud d) Hybrid cloud	K1	CO1
	2	What is the main focus of web 2.0 service? a) Visual aesthetics b) User collaboration and sharing c) Client-server architecture d) Data encryption	K1	CO1
2	3	Which of the following is a core service provided by AWS? a) EC2 b) Google compute engine c) Microsoft Azure d) IBM Watson	K1	CO4
	4	Which AWS service allows for the hosting of virtual servers? a) Amazon S3 b) Amazon EC2 c) Amazon cloudfront d) Amazon DynamoDB	K2	CO4
3	5	What types of service model does google app engine follow? a) IaaS b) PaaS c) SaaS d) DaaS	K2	CO4
	6	Inter cloud architecture is primarily designed to support which type of environment? a) On premise only b) Hybrid and multi cloud environments c) Single cloud provider d) Local networks only	K2	CO3
4	7	What is the main risk associated with spot cloud services? a) High Operational costs b) Potential instance termination c) Lack of cloud security d) Limited cloud regions	K1	CO1
	8	Which azure service is used for hosting databases? a) Azure SQL Database b) Azure app service c) Azure storage d) Azure DevOps	K2	CO4
5	9	Which technique allows cloud providers to minimize energy consumption by adjusting resources based on demand? a) Auto Scaling b) Manual resource allocation c) Increasing hardware size d) Reducing network bandwidth	K1	CO1
	10	What is Green Cloud computing? a) The use of renewable energy to power cloud data centers b) A type of cloud security model c) A cloud service offered for free d) Cloud computing focused on increasing power consumption	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	What are the key challenges associated with implementing utility-oriented computing, particularly in terms of multi-tenant cloud environment?	K2	CO1
		(OR)		
	11.b.	How do cloud computing environments impact the architectural design of modern applications?		
2	12.a.	What are the taxonomy of virtualization techniques?	K3	CO2
		(OR)		
	12.b.	Describe the Pros and Cons of visualization.		
3	13.a.	How does AWS's multi-layered cloud computing architecture scalability and fault tolerance for large-scale applications?	K3	CO3
		(OR)		
	13.b.	Explain the lifecycle of google app engine.		
4	14.a.	Describe about the Spot Cloud.	K4	CO5
		(OR)		
	14.b.	Write a note about cloud federation stack.		
5	15.a.	Discuss about characteristics and definition of Inter cloud.	K4	CO5
		(OR)		
	15.b.	Define the architecture of Green cloud computing.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain about building the cloud computing environments.	K1	CO1
2	17	Describe about the cloud computing models.	K2	CO2
3	18	Elaborate the concept of Microsoft Azure.	K4	CO4
4	19	Explain about the type of clouds in cloud computing.	K3	CO3
5	20	Briefly explain about the third party cloud services.	K5	CO5

Z-Z-Z

END