

SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar, Kattankulathur – 603 203

DEPARTMENT OF INFORMATION TECHNOLOGY

QUESTION BANK



VI SEMESTER

PIT204 – CLOUD SERVICES AND MANAGEMENT

Regulation – 2023

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SUBJECT : PIT204 – CLOUD SERVICES AND MANAGEMENT

YEAR/SEM : III / VI

UNIT I CLOUD SERVICE MANAGEMENT FUNDAMENTALS			
The Essential Characteristics, Cloud Service Models, Cloud Service Consumptions, Cloud Service Deployment Models, Cloud Ecosystem, Basics of Information Technology Service Management and Cloud Service Management, Cloud Reference Architecture.			
PART – A			
Q. No.	Questions	BT Level	Competence
1	List any two essential characteristics of cloud computing.	BTL1	Remembering
2	Why is measured service important in cloud computing?	BTL2	Understanding
3	Differentiate between IaaS and PaaS.	BTL2	Understanding
4	Define on-demand self-service in cloud computing.	BTL1	Remembering
5	Name the three cloud service models.	BTL1	Remembering
6	What is Software as a Service (SaaS)?	BTL1	Remembering
7	What is meant by cloud service consumption?	BTL1	Remembering
8	Identify any two roles involved in cloud service consumption.	BTL1	Remembering
9	List the types of cloud deployment models.	BTL1	Remembering
10	How does PaaS simplify application development?	BTL2	Understanding
11	Define private cloud.	BTL1	Remembering
12	How does pay-per-use affect cloud service consumption?	BTL2	Understanding
13	Why is a hybrid cloud preferred by organizations?	BTL2	Understanding
14	Compare public cloud and private cloud.	BTL2	Understanding
15	How does a cloud ecosystem support service integration?	BTL2	Understanding
16	What is IT Service Management (ITSM)?	BTL1	Remembering
17	What is a cloud ecosystem?	BTL1	Remembering
18	Define Cloud Service Management.	BTL1	Remembering
19	How does cloud service management improve service delivery?	BTL2	Understanding
20	What is cloud reference architecture?	BTL1	Remembering
21	Why is cloud reference architecture important for standardization?	BTL2	Understanding
22	Summarize the importance of ITSM in cloud environments.	BTL2	Understanding
23	Mention any two components of a cloud ecosystem.	BTL1	Remembering
24	State the role of the service management layer in cloud architecture.	BTL1	Remembering

PART – B				
Q. No.	Questions	Mar ks	BT Level	Competence
1	Apply the essential characteristics of cloud computing to justify the use of cloud services for an e-commerce application.	16	BTL3	Applying
2	Evaluate the significance of essential cloud characteristics in comparison with traditional IT infrastructure.	16	BTL5	Evaluating
3	Demonstrate how on-demand self-service and rapid elasticity can be used to handle varying workloads in a cloud environment.	16	BTL3	Applying
4	Discuss the Infrastructure-as-a-Service, Platform as a service and Software as a service.	16	BTL3	Applying
5	Compare and analyze cloud service models based on control, scalability, and cost.	16	BTL4	Analyzing
6	Apply cloud service consumption concepts to explain pay-as-you-go pricing in cloud computing.	16	BTL3	Applying
7	Assess the advantages and limitations of each cloud service model.	16	BTL5	Evaluating
8	Analyze the cloud service consumption lifecycle and its impact on service quality.	16	BTL4	Analyzing
9	Analyze public, private, hybrid, and community cloud deployment models.	16	BTL4	Analyzing
10	Design a deployment strategy using appropriate cloud deployment models.	16	BTL6	Creating
11	Examine the roles of cloud providers, consumers, brokers, carriers, and auditors.	16	BTL4	Analyzing
12	Apply cloud ecosystem concepts to demonstrate service integration among cloud entities.	16	BTL3	Applying
13	Apply ITSM principles to manage cloud services effectively.	16	BTL3	Applying
14	Evaluate the role of ITSM frameworks in improving cloud service quality.	16	BTL5	Evaluating
15	Break down the cloud reference architecture into its layers and explain their components.	16	BTL4	Analyzing
16	Illustrate cloud reference architecture to explain cloud service delivery.	16	BTL3	Applying
17	Design a cloud reference architecture for an enterprise cloud system.	16	BTL6	Creating

UNIT II CLOUD SERVICES STRATEGY				
Cloud Service Architecture, Cloud Strategy Fundamentals, Cloud Strategy Management Framework, Cloud Policy, Key Driver for Adoption, Risk Management, IT Capacity and Utilization, Demand and Capacity matching, Demand Queuing, Change Management, Cloud Service Architecture.				
PART – A				
Q. No.	Questions		BT Level	Competence
1	Define cloud service architecture.		BTL1	Remembering
2	List any two components of cloud service architecture.		BTL1	Remembering
3	Summarize the role of cloud service architecture in service delivery.		BTL2	Understanding
4	What is cloud strategy?		BTL1	Remembering
5	Identify any two objectives of cloud strategy.		BTL1	Remembering
6	Define cloud strategy management framework.		BTL1	Remembering
7	Outline the purpose of a cloud strategy management framework.		BTL2	Understanding

8	What is a cloud policy?	BTL1	Remembering	
9	State the importance of cloud policy in governance.	BTL1	Remembering	
10	Interpret the role of cloud policy in ensuring compliance.	BTL2	Understanding	
11	List out the key drivers for cloud adoption.	BTL1	Remembering	
12	State the role of scalability as a cloud adoption driver.	BTL2	Understanding	
13	Define risk management in cloud computing.	BTL1	Remembering	
14	Name any five cloud-related risks.	BTL1	Remembering	
15	Summarize the need for risk management in cloud environments.	BTL2	Understanding	
16	State how risk management improves cloud security.	BTL2	Understanding	
17	Define IT resource utilization.	BTL1	Remembering	
18	Why capacity planning is important in cloud systems?	BTL2	Understanding	
19	What is IT capacity management?	BTL1	Remembering	
20	How demand and capacity matching improves performance?	BTL2	Understanding	
21	What is the purpose of demand queuing?	BTL1	Remembering	
22	How does demand queuing helps to manage peak loads?	BTL2	Understanding	
23	Give the importance of change management in cloud environments.	BTL2	Understanding	
24	List any three objectives of change management.	BTL1	Remembering	
PART – B				
Q. No.	Questions	Ma rks	BT Level	Competence
1	Analyze the components of cloud service architecture and their role in ensuring availability and performance.	16	BTL4	Analyzing
2	Apply cloud strategy fundamentals to migrate a traditional IT infrastructure to the cloud.	16	BTL3	Applying
3	Develop a cloud strategy for a medium-scale organization considering cost, security, and performance factors.	16	BTL6	Creating
4	Examine the phases of a cloud strategy management framework and their interrelationships.	16	BTL4	Analyzing
5	Demonstrate the cloud strategy management framework to manage cloud adoption in an organization.	16	BTL3	Applying
6	Apply cloud policy guidelines to ensure data security and regulatory compliance in cloud environments.	16	BTL3	Applying
7	Investigate the impact of cloud policies on security, compliance, and service governance.	16	BTL4	Analyzing
8	Apply key drivers for cloud adoption to justify cloud migration for a business organization.	16	BTL3	Applying
9	Examine the suitable risk management techniques to handle security and compliance risks in a cloud environment.	16	BTL4	Analyzing
10	Design a comprehensive cloud risk management plan for an enterprise cloud deployment.	16	BTL6	Creating
11	Analyze the relationship between IT capacity, utilization, and performance in cloud environments.	16	BTL4	Analyzing
12	Assess the importance of capacity utilization metrics in managing cloud services effectively.	16	BTL5	Evaluating
13	Demonstrate how demand and capacity matching techniques are applied in cloud service management.	16	BTL3	Applying
14	Justify the use of demand queuing techniques in cloud resource scheduling.	16	BTL5	Evaluating
15	Discuss the demand queuing mechanisms to manage workload requests in cloud platforms.	16	BTL3	Applying

16	Critically assess the role of change management in maintaining cloud service stability.	16	BTL5	Evaluating
17	Explain the change management practices to control modifications in cloud service environments.	16	BTL3	Applying

UNIT III CLOUD SERVICE MANAGEMENT			
Cloud Service Reference Model, Cloud Service Lifecycle, Basics of Cloud Service Design, Dealing with Legacy Systems and Services, Benchmarking of Cloud Services, Cloud Service Capacity Planning, Cloud Service Deployment and Migration, Cloud Marketplace, Cloud Service Operations Management.			
PART – A			
Q. No.	Questions	BT Level	Competence
1	Define Cloud Service Reference Model.	BTL1	Remembering
2	How does the Cloud Service Reference Model help service providers?	BTL2	Understanding
3	Name the phases of the Cloud Service Lifecycle.	BTL1	Remembering
4	Differentiate between Cloud Service Design phase and Cloud Service Operation phase.	BTL2	Understanding
5	Define Cloud Service Design.	BTL1	Remembering
6	Why scalability is considered during cloud service design?	BTL2	Understanding
7	Compare traditional service design and cloud service design.	BTL2	Understanding
8	What are legacy systems?	BTL1	Remembering
9	How does cloud integration help in handling legacy systems?	BTL2	Understanding
10	Distinguish between legacy systems and cloud-native systems.	BTL2	Understanding
11	Outline the need for benchmarking cloud services.	BTL2	Understanding
12	List down the performance metrics used in cloud benchmarking.	BTL1	Remembering
13	Define cloud service capacity planning.	BTL1	Remembering
14	Find the objective of cloud service capacity planning.	BTL1	Remembering
15	Which cloud feature supports dynamic scaling of resources?	BTL1	Remembering
16	Define cloud service deployment.	BTL1	Remembering
17	When is cloud service migration preferred over deployment?	BTL1	Remembering
18	Choose the correct term related to cloud service marketplace.	BTL1	Remembering
19	Where is cloud service capacity planning applied in the service lifecycle?	BTL1	Remembering
20	Who is responsible for managing cloud service operations?	BTL1	Remembering
21	Compare cloud service deployment and cloud service migration.	BTL2	Understanding
22	Outline the role of cloud marketplaces in service selection.	BTL2	Understanding
23	Illustrate cloud service operations management using a simple flow.	BTL2	Understanding
24	Infer the impact of poor capacity planning on cloud services.	BTL2	Understanding

PART – B				
Q. No.	Questions	Ma rks	BT Level	Competence
1	Examine the components of the Cloud Service Reference Model and analyze their interactions in service delivery.	16	BTL4	Analyzing
2	Develop a customized Cloud Service Reference Model suitable for a large-scale educational institution.	16	BTL6	Creating
3	Break down the phases of the Cloud Service Lifecycle and analyze their significance in service continuity.	16	BTL4	Analyzing
4	Demonstrate the application of the Cloud Service Lifecycle phases for deploying a cloud-based business service.	16	BTL3	Applying
5	Evaluate different cloud service design approaches based on performance, cost, and scalability.	16	BTL5	Evaluating
6	Show how legacy systems can be integrated into a modern cloud environment using suitable strategies.	16	BTL3	Applying
7	Analyze the challenges involved in migrating legacy systems to cloud platforms.	16	BTL4	Analyzing
8	Construct a cloud service capacity planning strategy for scalable applications.	16	BTL6	Creating
9	Apply the Cloud Service Reference Model to explain cloud service delivery.	16	BTL3	Applying
10	Develop a cloud service lifecycle for a business-oriented cloud application.	16	BTL3	Applying
11	Evaluate cloud service deployment and migration strategies for enterprise systems.	16	BTL5	Evaluating
12	Compare traditional service design and cloud service design approaches.	16	BTL4	Analyzing
13	Examine the challenges involved in dealing with legacy systems in cloud environments.	16	BTL4	Analyzing
14	Assess the effectiveness of benchmarking techniques for cloud services.	16	BTL5	Evaluating
15	Use benchmarking techniques to compare the performance of different cloud service providers.	16	BTL3	Applying
16	Analyze the phases of the Cloud Service Lifecycle and their significance.	16	BTL4	Analyzing
17	Formulate a cloud service operations management plan to ensure availability and performance.	16	BTL6	Creating

UNIT IV CLOUD SERVICE ECONOMICS				
Pricing models for Cloud Services, Freemium, Pay Per Reservation, Pay per User, Subscription based Charging, Procurement of Cloud-based Services, Capex vs Opex Shift, Cloud service Charging, Cloud Cost Models.				
PART – A				
Q. No.	Questions		BT Level	Competence
1	Define cloud service pricing model.		BTL1	Remembering
2	Which pricing model provides limited services free of cost?		BTL1	Remembering
3	Find two examples of cloud service pricing models.		BTL1	Remembering
4	Outline the process of procuring cloud-based services.		BTL2	Understanding
5	Illustrate the CapEx to OpEx shift in cloud computing.		BTL2	Understanding
6	Infer how elasticity affects cloud service pricing.		BTL2	Understanding
7	Illustrate cloud cost model using a simple example.		BTL2	Understanding

8	Define pay-per-user pricing model.		BTL1	Remembering
9	Who decides cloud service pricing strategies?		BTL1	Remembering
10	Choose the correct example of usage-based pricing.		BTL1	Remembering
11	When is pay-per-reservation pricing preferred?		BTL1	Remembering
12	How is cloud service charging calculated?		BTL1	Remembering
13	Classify cloud pricing models based on usage and commitment.		BTL2	Understanding
14	Compare pay-per-user and subscription-based pricing models.		BTL2	Understanding
15	Define subscription-based charging.		BTL1	Remembering
16	Where is cloud service pricing applied in cloud computing?		BTL1	Remembering
17	Infer the impact of cloud pricing on operational cost.		BTL2	Understanding
18	Compare CapEx and OpEx cost models.		BTL2	Understanding
19	Outline the components of cloud service charging.		BTL2	Understanding
20	Define freemium pricing model.		BTL1	Remembering
21	Define pay-per-reservation pricing.		BTL1	Remembering
22	Compare freemium and pay-per-use pricing models.		BTL2	Understanding
23	Find two benefits of cloud-based service procurement.		BTL1	Remembering
24	How do cloud cost models support financial planning?		BTL2	Understanding
PART – B				
Q. No.	Questions	M ar ks	BT Level	Competence
1	Apply suitable cloud pricing models for different business scenarios.	16	BTL3	Applying
2	Formulate a cost-optimized cloud pricing strategy for an enterprise.	16	BTL6	Creating
3	Construct a cloud cost model for a real-time application.	16	BTL6	Creating
4	Solve a cloud cost estimation problem using usage-based pricing.	16	BTL3	Applying
5	Analyze the CapEx to OpEx shift in cloud adoption.	16	BTL4	Analyzing
6	Evaluate cloud cost models used by major cloud providers.	16	BTL5	Evaluating
7	Determine the impact of pricing strategies on cloud service consumption.	16	BTL5	Evaluating
8	Examine the cloud service procurement process.	16	BTL4	Analyzing
9	Categorize cloud cost components involved in service charging.	16	BTL4	Analyzing
10	Assess the effectiveness of freemium pricing for user acquisition.	16	BTL5	Evaluating
11	Develop a cloud service charging plan for a small enterprise.	16	BTL3	Applying
12	Choose an appropriate cloud pricing model for a SaaS application and justify.	16	BTL3	Applying
13	Appraise the benefits of cloud-based procurement over traditional procurement.	16	BTL5	Evaluating
14	Distinguish between pay-per-reservation and pay-per-use pricing.	16	BTL4	Analyzing
15	Compare subscription-based and freemium pricing models.	16	BTL4	Analyzing
16	Create a cloud service charging framework for a service provider.	16	BTL6	Creating
17	Discuss cloud service economics in achieving sustainable cloud adoption.	16	BTL6	Creating

UNIT V CLOUD SERVICE GOVERNANCE & VALUE				
IT Governance Definition, Cloud Governance Definition, Cloud Governance Framework, Cloud Governance Structure, Cloud Governance Considerations, Cloud Service Model Risk Matrix, Understanding Value of Cloud Services, Measuring the value of Cloud Services, Balanced Scorecard, Total Cost of Ownership.				
PART – A				
Q. No.	Questions	BT Level	Competence	
1	Define IT governance.	BTL1	Remembering	
2	Define cloud governance.	BTL1	Remembering	
3	Which governance focuses on cloud-based services?	BTL1	Remembering	
4	Compare TCO and traditional cost evaluation methods.	BTL2	Understanding	
5	Infer how governance improves the value of cloud services.	BTL2	Understanding	
6	Find two objectives of cloud governance.	BTL1	Remembering	
7	Classify governance controls used in cloud environments.	BTL2	Understanding	
8	Illustrate cloud service model risk matrix.	BTL2	Understanding	
9	Choose the correct component of a cloud governance framework.	BTL1	Remembering	
10	When is cloud governance required in cloud adoption?	BTL1	Remembering	
11	Define cloud governance considerations.	BTL1	Remembering	
12	Find two cloud governance considerations.	BTL1	Remembering	
13	Outline the structure of a cloud governance framework.	BTL2	Understanding	
14	Compare IT governance and cloud governance.	BTL2	Understanding	
15	Define cloud governance framework.	BTL1	Remembering	
16	Define cloud governance structure.	BTL1	Remembering	
17	Infer the role of cloud governance in risk management.	BTL2	Understanding	
18	Define cloud service model risk matrix.	BTL1	Remembering	
19	Define cloud service value.	BTL1	Remembering	
20	How is the value of cloud services measured?	BTL1	Remembering	
21	Illustrate the concept of balanced scorecard.	BTL2	Understanding	
22	Define Total Cost of Ownership (TCO).	BTL1	Remembering	
23	Who is responsible for cloud governance in an organization?	BTL1	Remembering	
24	Where is cloud governance applied in cloud environments?	BTL1	Remembering	
PART – B				
Q. No.	Questions	Marks	BT Level	Competence
1	Apply IT governance principles in a cloud service environment.	16	BTL3	Applying
2	Create a cloud governance model for a multi-cloud environment.	16	BTL6	Creating
3	Choose suitable governance controls for managing cloud risks.	16	BTL3	Applying
4	Analyze cloud governance structure and its responsibilities.	16	BTL4	Analyzing
5	Construct a balanced scorecard for measuring cloud service value.	16	BTL6	Creating
6	Examine cloud governance considerations for large organizations.	16	BTL4	Analyzing
7	Elaborate a method to measure cloud service value using TCO.	16	BTL6	Creating
8	Assess the effectiveness of cloud governance in risk mitigation.	16	BTL5	Evaluating

9	Combine governance and value metrics for effective cloud management.	16	BTL6	Creating
10	Compare IT governance and cloud governance frameworks.	16	BTL4	Analyzing
11	Appraise the role of balanced score card in cloud value measurement.	16	BTL5	Evaluating
12	Formulate a cloud governance strategy to enhance service value.	16	BTL6	Creating
13	Determine the value of cloud services using governance metrics.	16	BTL5	Evaluating
14	Discuss governance challenges in realizing cloud service value.	16	BTL6	Creating
15	Develop a cloud governance framework for an enterprise.	16	BTL3	Applying
16	Categorize risks using the cloud service model risk matrix.	16	BTL4	Analyzing
17	Evaluate the cloud service model risk matrix for decision-making.	16	BTL5	Evaluating

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