

Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306

**POST GRADUATE DIPLOMA IN MANAGEMENT (2024-25)**  
**MID TERM EXAMINATION (TERM -I)**

Subject Name: **Cloud Computing for Business**

Time: **01.00 hrs**

Sub. Code: **PGIT44**

Max Marks: **20**

**Note: All questions are compulsory. Section A carries 10 marks: 2 questions of 5 marks each, Section B carries 10 marks one Case Study having 2 questions of 5 marks each.**

<u>SECTION – A</u>		
Attempt all questions. All questions are compulsory.		05×2 = 10 Marks
Questions	CO	Bloom's Level
<p><b>Q. 1:</b> What are the primary benefits that organizations can realize from utilizing cloud services.</p> <p style="text-align: center;">Or</p> <p>The organizations needed cloud computing features, such as scalability, reliability, security, and cost-efficiency, and how do these features impact the overall effectiveness and success of cloud adoption in various industries?</p>	CO1	L4
<p><b>Q2 :</b> Explain terms SAAS, PAAS, IAAS with example.</p> <p style="text-align: center;">Or</p> <p>Explain Term Scaling. Explain what is Horizontal and vertical scaling.</p>	CO2	L3
<u>SECTION – B</u>		
Read the case and answer the questions		05×2 = 10 Marks
Questions	CO	Bloom's Level
<p><b>Q. 1: Case Study: Cloud Strategy for Festive Sales at ShopSmart E-commerce</b></p> <p><b>Background</b> ShopSmart is a fast-growing e-commerce company that sells a wide range of products, from electronics to clothing. The company faces big swings in demand, especially during festive seasons and major sales events like Black Friday, Diwali, and Christmas. During these times, their website often struggles to keep up, causing performance issues that lead to lost sales and unhappy customers. To fix these problems, ShopSmart brought me on board as a technology consultant to develop a cloud strategy.</p> <p><b>Current Challenges</b></p> <ol style="list-style-type: none"> <li><b>Scalability Problems:</b> During peak sales events, ShopSmart's current system can't handle the large spikes in traffic, causing the website to load slowly or even crash.</li> <li><b>High Costs:</b> ShopSmart has to maintain a large number of servers year-round, which is expensive, especially during slower periods when they don't need as much capacity.</li> </ol>	CO1, CO2	L4 L4

3. **Inventory Issues:** Managing inventory is difficult because demand changes so much. Sometimes products run out of stock, and other times there's too much in stock.
4. **Customer Experience:** When the website is slow or crashes during big sales events, it frustrates customers, which can hurt the company's reputation and sales.

### **Proposed Cloud Strategy**

To solve these problems, I recommend a **Hybrid Cloud** strategy, combining the flexibility of public cloud services with the security of a private cloud. Using **Infrastructure as a Service (IaaS)** from providers like AWS or Azure, ShopSmart can quickly add or remove virtual servers based on real-time traffic. This will ensure the website runs smoothly during busy periods.

Also, using **Platform as a Service (PaaS)** will allow ShopSmart's developers to focus on improving the site without worrying about the infrastructure. A **load balancing solution** will spread out traffic so that no single server gets overloaded. By using a **Content Delivery Network (CDN)**, ShopSmart can store static content closer to customers, reducing load times and improving the user experience. Finally, a **cloud-based inventory system** will give the company real-time insight into stock levels, allowing better management during high-demand periods.

### **Expected Results**

This cloud strategy should bring major improvements. ShopSmart will be able to handle up to five times more traffic during peak sales without any performance issues. The site will run faster, making customers happier and increasing sales. By using cloud services, ShopSmart can also cut costs during slower times by only paying for the server space they actually need. Better inventory management will help avoid running out of stock or holding too much, so products are available when customers need them. Ultimately, this approach will lead to higher sales, better customer loyalty, and long-term success for ShopSmart in the competitive e-commerce market.

### **Conclusion**

A hybrid cloud strategy is the right solution for ShopSmart's problems during busy sales seasons. By using scalable cloud services like IaaS and PaaS, ShopSmart can adjust its system to handle high traffic while saving costs during slow periods. This strategy also improves inventory management and enhances the customer experience with faster load times and fewer outages. Overall, this cloud strategy sets ShopSmart up for long-term growth, better operations, and a stronger position in the competitive e-commerce market.

### **Questions based on the case study**

1. How does leveraging a pay-as-you-go model in cloud services reduce operational costs for ShopSmart, especially during off-peak periods? How does this compare to the fixed costs of maintaining on-premises servers?
2. What are the key challenges that ShopSmart faces with its current on-premises infrastructure, and how does a hybrid cloud strategy address these issues during peak sales events?

**Kindly fill the total marks allocated to each CO's in the table below:**

<b>COs</b>	<b>Marks Allocated</b>
<b>CO1</b>	10 Marks
<b>CO2</b>	10 Marks

<b>CO3</b>	
<b>CO4</b>	

(Please ensure the conformity of the CO wise marks allocation as per your TLEP.)

**Blooms Taxonomy Levels given below for your ready reference:**

**L1= Remembering**

**L2= Understanding**

**L3= Apply**

**L4= Analyze**

**L5= Evaluate**

**L6= Create**