**Five Characteristics of Cloud Computing – Quiz**

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| # | Question | Answers |  |
| 1 | On-demand self-service is all about contacting cloud service providers over the phone or via email to quickly change the allocated virtual resources. | Yes  **No** | Just the opposite, consumers or end-users will be able to perform most of the activities by themselveswith minimum human interaction. |
| 2 | On-demand self-service is commonly supported by a cloud system based on the following option: | 1. Web-based management portal 2. Command-line console 3. Web APIs 4. Self-Development Kit for programmers 5. All of the above options |  |
| 3 | The capabilities to access cloud-based services over the network and through standard mechanisms from multiple locations and a wide range of end-point devices are related to broad network access characteristics of Cloud Computing. | Yes  No |  |
| 4 | Resource pooling is the ability to use pool resources to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. | Yes  No |  |
| 5 | Using rapid elasticity, organizations can avoid the cost associated with the computing resources being used. | Yes  No | Using rapid elasticity, organizations can avoid the cost associated with idle computing resources. |
| 6 | All over the night until around 08:00 morning time, the load on the server is quite low, then people are coming to the office, connecting to their email accounts, so the load will keep increasing as more people are using the system up to some pick workload. Around 4:00 PM, people are starting to leave the office, and the load is going down again.  What is the type of workload pattern? | 1. Static workload pattern 2. Static and predictable workload pattern 3. Dynamic workload pattern 4. Dynamic and predictable workload pattern |  |
| 7 | In elastic scaling, the allocated resources are increased slowly in small intervals according to the experienced workload.  When we use elastic scaling, resources can be provision and decommission much faster with much tighter alignment between the current workload to the allocated IT resources. | Yes  No |  |
| 8 | Auto-scaling is a much better solution than using elastic scaling | Yes  No | Elastic scaling is usually implemented by using a feature called **“auto-scaling.”** |
| 9 | Basically the all business model of cloud services is based on renting a particular service for a specific period. | **Yes**  No |  |
| 10 | Using the “Pay-as-you-go” pricing module, we pay for the resources we decided to use. | **Yes**  No |  |

Cloud Service Models – Quiz

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| # | Question | Answers |  |
| 1 | Based on the National Institute of Standards and Technology definition for cloud computing, there are: | 1. Five essential characteristics and Three service models 2. Three essential characteristics and five service models 3. Five deployment models and four service models 4. None of the answers above |  |
| 2 | In a traditional on-premises data center, organizations are hosting applications on their private physical networks and IT infrastructure. | Yes  No |  |
| 3 | Software as a Service is the foundation of the cloud computing stack. SaaS model provides compute power and storage services on demand. Instead of buying and installing the required resources in their traditional data center, organizations can rent these required resources as needed. | Yes  No | It is **Infrastructure as a Service (IaaS)** |
| 4 | According to the cloud computing stack, based on Infrastructure as a Service, the customer is responsible for all physical infrastructure, including the network, storage, and server layers, in addition to the virtualization layer. | Yes  No | The cloud service providers are responsible for all those layers. |
| 5 | Platform as a service is a framework allowing customers to develop, run, and manage applications without the complexity of building and maintaining the IT infrastructure. In a PaaS offering, the cloud service provider manages  the entire platform, not just the OS, so all upgrades, patches, and support are handled by the cloud service provider. | Yes  No |  |
| 6 | Salesforce, Office365, Gmail, and Dropbox are all examples of IaaS. | Yes  No | They are examples of SaaS – Software as a Service. |

Cloud Deployment Models – Quiz

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| # | Question | Answers |  |
| 1 | The four deployments options of cloud computing are Public, Private, Hybrid, and Community. | Yes  No |  |
| 2 | A private cloud is a group of cloud services offered to the general public. The private cloud provider owns, manages, and operates all computing resources located within the provider’s facilities. | Yes  No | Public cloud and not a private cloud. |
| 3 | A public cloud is a multi-tenant environment where resources are shared across multiple organizations. And a private cloud is a single-tenant environment where resources are shared across multiple users from a single organization. | Yes  No |  |
| 4 | Private clouds are suitable for small organizations without any significant existing datacenter assets that are looking to move forward into cloud technologies | Yes  No | Private clouds are good for large organizations with substantial existing datacenter assets that are looking to move forward into cloud technologies |
| 5 | Key benefits of private clouds are: | 1. Business agility compared to traditional IT 2. Security as sensitive data are stored on-premises 3. More control over the infrastructure 4. It is a capital investment 5. All the above answers are correct |  |
| 6 | Some of the drawbacks related to private clouds are: | 1. IT infrastructure is still installed and managed by the organization. 2. Upfront capital investments are needed and ongoing operational costs. 3. Limited scalability compared to public clouds 4. A+B 5. A+B+C |  |
| 7 | Hybrid cloud is a cloud solution that is actually a mix of different cloud deployments that are integrated together somehow to form a combined IT infrastructure. | Yes  No |  |
| 8 | Cloud bursting is an example of a hybrid cloud where users or applications require to scale computing resources that are beyond the private cloud capability, and they can keep scaling to the public cloud. The public cloud is acting as an extension of the organization’s datacenter. | Yes  No |  |
| 9 | Cloud computing management platforms can be used to manage private and public clouds | Yes  No |  |

Benefits of Public Cloud Service – Quiz

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| # | Question | Answers |  |
| 1 | Public cloud providers are using mega-scale data centers and networking infrastructure on a global scale. From a particular organization that is using the cloud service, this is like “unlimited” pool of resources.  We can scale up by using more powerful computing nodes or scale out by adding more nodes into a distributed cluster. | **Yes**  **No** |  |
| 2 | Large organizations can better use their private clouds and share that with other organizations. This is the idea with Economies of Scale, the cost advantage per unit with the increased output of units. | Yes  No | Cloud service providers are providing access to public clouds and can better utilize physical computing, storage, and networking resources, reduce energy consumption, and reduce maintenance overhead. This is the idea with Economies of Scale. |
| 3 | Public clouds can always save money compared to private clouds | Yes  No | In some cases, it will save money, and in others, it may be a more costly solution in the long run. |
| 4 | Public clouds are helping to shift operational expense to capital expense | Yes  No | Public clouds are helping to shift capital expense to operational expenditure. |
| 5 | Using public cloud services, the operational expenses can be variable as they are based on real consumption. Looking at a particular month as a time interval, resources can be scaled up and scaled down as needed so basically the monthly paying will be variable according to the actual usage on that particular month. | Yes  No |  |
| 6 | In traditional IT, one organization is usually using one or two data centers with several high availability options implemented in critical components, or maybe use another on-premises data center in different geographic location for disaster recovery. This is standard practice in IT, and it is more reliable than public clouds. | Yes  No | When we go to public cloud service providers, they are using global-scale cloud infrastructure, enabling us to implement a system in multiple locations.  Also, cloud service providers are obligated to certain SLAs - service level agreements. |
| 7 | Let’s say we have a web startup company, and over the last two months, we had a 50% growth in traffic. That’ great news, but our servers owned and operated by us are not holding this capacity demand, and now we need to upgrade all systems.  If we own the IT infrastructure, then we will probably be much more agile, flexible and adaptive to things that are continually changing. | Yes  No | This is a typical example where public clouds are much better solution to any private IT infrastructure. |