

Cloud Computing and its Applications

FAT-2021 Model Question Paper

1)

a) Assume that you own the company “ABC” technologies and maintain static resources. Resource requirement to handle the current workloads of your company is highly unstable. Explain what are the possible issues which can encounter with dynamic workloads. 5M

b) Assume that your role in a cloud environment is a cloud carrier, identify your importance in the cloud, and explain how you are guaranteeing your services. 7M

2)

a) A company “SCI-HUB” sells its products online. The SCI-HUB company needs to guarantee the HTC and HPC services to its clients. They have two options to upgrade their storage network, one is SAN, and the other one is NAS. As per SCI-HUB client requirement, you suggest one of the networks which best suits this scenario and explains why? 8M

b) Differentiate elasticity and Scalability in cloud computing. 4M

3)

a) A cloud consumer is planning to host his web application in the cloud environment. The consumer wants his/her web application availability is 100% and the response time is very minimal. Assume that, you are the cloud architect, and help the cloud consumer by specifying the cloud architecture which to match his requirements. 8M

b) Distinguish the roles of the monitoring agent and resource agent in the cloud environment. 4M

4)

More organizations need the same type of infrastructure to perform specific operations, and all these organizations looking for a cloud environment. Find and explain the suitable cloud service model with respect to cloud consumer and cloud provider perspective. 12M

5)

a) An attacker is trying to perform the sniffing attack when the cloud consumer and cloud provider communicate with each other. Explain your preventive solution to stop the sniffing attack. 6M

b) Assume that you are the cloud owner fail to implement client authentication, explain what are the possible attacks can be possible with an example. 6M