School of Business
Master of Business Administration MBA Dual Specialization
Semester End Examination - May 2024

Duration : 180 Minutes
Max Marks : 100

Sem IV - MBBA6023 - Analytics and Cloud Computing

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1) Identify the suitability of Infrastructure as a Service (IaaS) for businesses with varying infrastructure needs. — K3 (6)

2) A start up software development company is striving for growth in business. Analyze how PaaS characteristics can enhance development efficiency and collaboration. — K4 (8)

3) A manufacturing company is considering a transition to the cloud. Analyze how the evolution of cloud computing in the company impacted its growth. — K4 (8)

4) A global e-commerce company wants to enhance data accessibility for customers worldwide. Classify the List of strategies that ensures low-latency access through Oracle Cloud's global reach. — K4 (4)

5) A traditional manufacturing company is considering adopting cloud computing. Identify three key characteristics of cloud computing and explain how they could benefit the company's operations and cost structure. — K3 (9)

6) A healthcare startup needs to choose a cloud provider for its patient management system. Determine a decision framework that includes considerations for data security, compliance with healthcare regulations, and the ability to scale as the startup grows. — K5 (10)

7) Imagine two medium sized company A and B . The company A specializes in building bespoke applications for clients across various industries. The company often works on projects with unique requirements. The company B is developing a new web-based application to provide online booking services for various leisure activities.Due to increase in maintenance cost and scalibility limitation both the comapnies wnats to migarte to cloud.The company A requires full control of the infratstructure and flexible archiitecture while company B requires fast development and deployment process with optimized cost. Exaplain Which of the following cloud services should be used by company A and B respectively in details.Also compare different characteristic of the cloud servicesincluding their architecture.

1. Infrastructure as a Service(IaaS)
2. Platform as a Service(PaaS)

K5 (10)

8) Recommend a comprehensive plan for an established bank, highlighting the key driving factors and benefits associated with migrating its entire IT infrastructure to the cloud. Consider scalability, cost-effectiveness, and innovation in your synthesis, tailoring the plan to meet the specific requirements of the banking sector.

K5 (15)

9) 90 Seconds founded in 2010 in New Zealand is a leading video creation platform that manages a marketplace of 12,000 video creative professionals in more than 160 countries across 70 categories. The company's technology empowers brands to plan, shoot, and edit video from anywhere in the world. 90 Seconds' 3,000-plus clients includes many global enterprise brands.

A few years ago, 90 Seconds received millions of dollars in venture capital, and its founders began using new technologies to scale the business. Another, more recent injection of funds gave 90 Seconds further impetus to grow, and the business now has about 160 team members worldwide – 60 of whom are based at its headquarters, now in Singapore.

90 Seconds started operations in a colocated data centre in the United States, but its rapid expansion saw the business run into scalability and cost issues – particularly around content delivery and storage. 90 Seconds then elected to move to another cloud service. the business decided to migrate again, this time to Google Cloud Platform.

Google's proven expertise in HD video delivery and analysis played a key role in 90 Seconds' decision to migrate to Google Cloud services.

In less than a year, 90 Seconds was all-in on Google Cloud Platform – barring eight years' worth of HD video the business is exploring options to move into the platform from its original colocated data center.

Question:
1.   From above case study, the 90 Seconds migrated to google cloud, As a cloud architect could you explain the deployment method and service used by the 90 Seconds with neat and clean diagram. (6 Marks)
2.   Discuss how Google cloud helps the 90 Seconds in compliance of its data security and video delivery. (6 Marks)
3.   Explore the different problems faced by 90 seconds during expansion of their business. (6 Marks)

K6 (18)

10) Assume the role of a Chief Information Security Officer (CISO) tasked with developing a holistic cloud security strategy for a large financial institution.

Question:
1. Create a comprehensive plan that recognizes Data Security, Privacy, and Compliance as interconnected aspects. (6 Marks)
2. Illustrate how this strategy achieves a balance between protecting sensitive data, respecting user privacy, and ensuring compliance with relevant regulations.(6 Marks)

K6 (12)