Final Assessment Test - June 2022



Course:

ITA6009

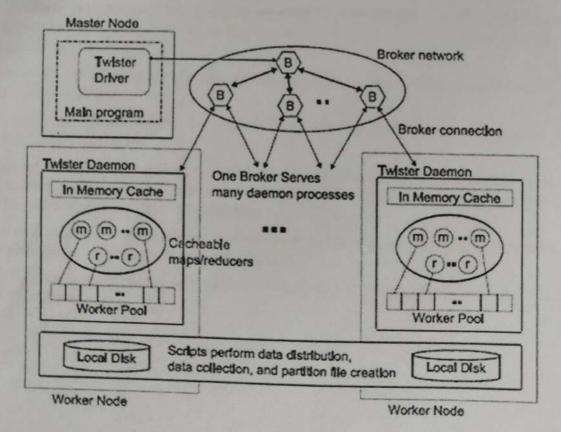
- Cloud Computing

Time: Three Hours

Max. Marks: 100

KEEPING MOBILE PHONE/SMART WATCH, EVEN IN 'OFF' POSITION IS TREATED AS EXAM MALPRACTICE Answer ALL Questions (10 X 10 = 100 Marks)

- SS Tech is planning to improvise the quality of its autonomous system. The autonomous systems contain sensitive data and there cannot be any data leak. Elucidate and architect the best cloud deployment to be followed for achieving this.
- loT based health monitoring system uses sensors such as ECG, blood pressure, blood glucose
 and body temperature for monitoring the human body. Determine the various services that
 can be offered by the cloud providers to perform the above task. Analyze the appropriate
 service model for this system and enlist its pros and cons.
- 3. Soft Tech solutions is known for providing quality edge computing services. During the recent brainstorming session, the CTO suggested the tech team to further intensify the testing for achieving better workload balancing mechanisms. As a member of tech team, apply the best virtualization technique to achieve this and document the pros and cons of running data intense applications.
- 4. COVID-19 has hit the business everywhere around the globe. In this regard, the core members of SM Tech were called for a brainstorming session to address the cost optimization challenge. The technology evangelist suggested for implementing an intercloud architecture to address this challenge. Enlist and elaborate on the design challenges for deploying Inter Cloud architecture.
- 5. Elucidate on the major entities of the below twister architecture and compare it with Hadoop architecture.



- 6. During a recent stakeholder meeting in SM tech, security auditors suggested them to implement various trusted zones for securing the infrastructure. As a security analyst of SM Tech, perform a regression testing on the various security breaches and update the attack database for implementing strong security policies for protecting the data and infrastructure. Suggest how trusted zones can be embedded in the security policies.
- 7. Prepare a detailed report on virtual server security threats and the recommendations to overcome them.
- 8. Soft Tech solutions has taken a project from health ministry to maintain the count and effects of the booster dose for the COVID-19. This data is maintained in the cloud and for effective processing, the technology team plans to implement load balancing. Which type of virtualization would be best for this scenario?
- SS Tech is planning to deploy a Blockchain based framework for securing its financial data.
 This framework would be deployed in all the demographic location around the world.
 Create a HBase Keys and Column Families which could be integrated with this framework.
- 10. VIT University is planning to revamp its private cloud vendors and is planning to setup its own cloud. As a cloud architect, suggest the possibilities.

