Homework 1: Introduction to Cloud Computing

Q1: Which of the following statements about this course are correct?
  A. INFS3208 has three assignment tasks, one individual project, and a final exam.
  B. The closed-book final exam is worth 50% to the final score and needs a double-pass (at least 25 marks).
  C. The credit of GCP is $50 and should be used wisely.
  D. All of the above.

Q2: Which of the following is not the business driver of Cloud Computing?
  A. Ease of use.
  B. Capacity planning.
  C. Cost reduction.
  D. Organizational agility.

Q3: What are the differences between Clustering and Grid Computing?
  A. Both nodes in Clustering and Grid Computing should have same type of hardware and operating system (homogeneous).
  B. Cluster nodes are often located close to each other, while nodes in Grid may be located at a huge distance from each other.
  C. Cluster nodes are usually internally connected via a high-speed network (e.g. fiber cables, routers, and switches), while Grid nodes are connected through a relatively low-speed network (e.g. Internet).
  D. Both B and C.

Q4: Which of the following are the pre-existing technologies that heavily impacted on Cloud Computing?
  A. Clustering, Big Data, Artificial Intelligence.
  B. Database, Grid Computing, Docker.
  C. Clustering, Grid Computing, Virtualization.
  D. None of the above.

Q5: Which of the following is NOT regarded as an IT resource in Cloud Computing?
  A. Virtual Machines on physical servers.
  B. Storage services (e.g. Dropbox/OneDrive/iCloud).
  C. Software program.
  D. Portable USB Flash Drives.

Q6: Which of the following statement is NOT correct?

A. Horizontal scaling is less expensive compared to vertical scaling in the cloud context.

B. Horizontal scaling normally does not need to turn off the machines or cluster while vertical scaling needs to shut down the machine, plug in more hardware and reboot.

C. Upgrading your RAM on your desktop is a typical horizontal scaling solution.

D. Vertical scaling often has a hardware limitation.

Q7: What are the cloud delivery models for Virtual Machine and Google App Engine, respectively?

A. SaaS and PaaS.

B. IaaS and PaaS.

C. IaaS and SaaS.

D. None of the above.

Q8: What computing resources do cloud users need to manage in Software-as-a-service?

A. Networking and storage.

B. Operation system.

C. Application and data.

D. None of the above.

Q9: What computing resources do cloud users need to manage in Platform-as-a-service?

A. Networking and storage.

B. Operation system.

C. Application and data.

D. None of the above.

Q10: What is a public cloud?

A. A publicly accessible and metered cloud environment owned by a third-party cloud provider.

B. A computing service that can only be accessed from a publicly shared computer.

C. A publicly accessible computing environment free of charge.

D. The cloud infrastructure that is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units).

Q11: Which of the following software that lets you run multiple virtual machines on one physical server machine?

A. Host operation system.

B. Guest operating system.

C. Virtual machine management or hypervisor.

D. Virtual machine management or hypervisor.

Q12: Which description of Multitenancy is correct?

   A. Multitenancy is used for cloud service implementations and for front-ends used to remotely manage cloud-based IT resources.

   B. The multitenant application enables multiple users (tenants) to access the same application logic simultaneously.

   C. Multitenant applications ensure that tenants have access to data and configuration information that are not their own.

   D. All of the above.