**ENCS 691K – Fall 2014**

**Cloud Networking and Service Provisioning**

**(Quiz #2)**

**Note: Please answer each question to the best of your understanding. No additional information will be provided during the quiz.**

### Question #1 (10 points)

1. Give 2 examples of XEN design goals.
2. Give an example of similarity between OpenNebula and VMWare Vsphere
3. Give an example of difference between OpenNebula and VMWare Vsphere
4. What does bare metal provisioning mean in the context of Openstack?
5. Give an example of advantage offered by bare metal provisioning in Openstack and give also an example of disadvantage.

### Question #2 (8 points)

1. Give an example of difference between a data center network and an Internet Service Provider (ISP) network
2. What makes a clos topology different from the other data center network topologies?
3. What are the layers in a conventional data center network topology? Define each layer in 1 sentence
4. What is the main difference between a data center and a virtual data center in terms of resources?

### Question #3 (12 points)

1. Give 3 examples of requirements on transport layer protocols for data centers
2. What is the fundamental difference between RTP and RTCP?
3. Give an example of difference between UDP and RTP
4. Give 3 examples of differences between SCTP and TCP
5. Give two examples of differences between UDP and DCCP
6. Give two examples of features that make SCTP more suitable for data center protocols compared to TCP.