**CS435: Cloud Computing**

**Assignment No. 01**

**Spring 2022**

**Solution:**

**Question 1:**

Cloud computing is offered in three different service models, each model satisfies a unique set of business requirements. These three models are known as Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS). You are required to write down the cloud service model corresponding to the following examples:

|  |  |
| --- | --- |
| **Example** | **Cloud Service Model** |
| Programming languages | Platform as a Service (PaaS) |
| Microsoft office 365 | Software as a Service (SaaS) |
| Sales force | Software as a Service (SaaS) |
| Amazon Web Services | Platform as a Service (PaaS) |
| Storage and deployed applications | Infrastructure as a Service (IaaS) |

**Question 2:**

IPv4 is a 32 bit universally unique address that can be expressed in hexadecimal notation. Ipv4 addresses are classified in 5 classes. You are required to write down the classes of the following IP addresses.

|  |  |
| --- | --- |
| **IP Address** | **Class** |
| 198.148.1.1 | Class C |
| 128.27.1.0 | Class B |
| 127.0.0.1 | Class A |
| 250.0.0.0 | Class E |
| 101.1.01 | Class A |

**Question 3:**

Assume that you have been hired as a network administrator in one of a well-known Automobile Company. The company management wants you to install a new network in their office building and connect all the client computers through a single central hub.

By considering the above scenario, answer the following questions.

* What type of network topology do you suggest for the above network scenario?

What will happen if one cable in the above-mentioned network fails?

**ANS:**

As a network administrator I use the Router topology.

If the one cable of the system is failed it does not affect the other system because router use a packet switching and each packet treat independently. In routing each system has its own IP and MAC address through which they communicate.