1. **What uniquely identifies a *host* on the Internet?**

IP address.

1. **When every machine in a network act as both a client and a server, what is the network model called?**

Peer-to-peer network model

1. **What is the top level domain in the domain name cs.anu.edu.au?**
2. **Give an example of a URL.**

Both URLs (Uniform Resource Locator) and URNs (Uniform Resource Name) are a type of URI (Uniform Resource Identifier). You can give an example of either one of the above, as an example of a URI.

http://cs.anu.edu.au/student/comp2410/ - URL

1. **Give an example of a URI.**

Both URLs (Uniform Resource Locator) and URNs (Uniform Resource Name) are a type of URI (Uniform Resource Identifier). You can give an example of either one of the above, as an example of a URI.

urn:ietf:rfc:2648 - URN.

The IETFs RFC 2648, the RFC for URN Namespaces.

1. **What is the domain name of the host with the IP address *150.203.208.213*?**

Use the 'host' or 'dig -x' command to get the answer.

sympodial.rsise.anu.edu.au

1. **What is the domain name of the host with the IP address 150.203.208.73.?**

Use the 'host' or 'dig -x' command to get the answer.

goolma.cecs.anu.edu.au.

1. **State one security issue for businesses that allow employees to bring their own devices to work (BYOD).**

Diverse operating systems, many versions of each. Hard to keep track of security vulnerabilities in each.

Loss of confidential data resulting from the loss of the device.

1. **Give the full name of one of the service layers of cloud computing. If you write the acronym, you will get half the marks.**

Software as a Service (SaaS)

Platform as a Service (PaaS)

Infrastructure as a Service (IaaS)

1. **State one advantage of Software as a Service, with respect to cloud computing.**

Pay a monthly or annual fee, or per use. Cheaper than buying it outright.

Automatic updates of the software.

All users use the same version of software. Compatibility.

Can be accessed from anywhere and from different devices.

1. **What is the domain name of an authoritative name server for *www.wikimedia.org*?**

Use the 'dig' command. Look up the 'Authority Section'.

The 'Additional Section' will give you their IP addresses.

ns0.wikimedia.org

ns1.wikimedia.org

ns2.wikimedia.org

1. **What is the IP address of an authoritative name server for *www.wikimedia.org*?**

Use the 'host' or 'dig -x' command to get the answer.

|  |  |
| --- | --- |
| IPv4 | 198.35.26.96 |
| IPv6 | 2620:0:863:ed1a::1 |

1. **Name any two major standards bodies that are involved with the development or promotion of data communication and networking standards. Acronyms will be sufficient.**

* ISO (International Organization for Standardization)
* ITU-T (ITU Telecommunication Standardization Sector)
* ISOC (Internet Society)
* IETF (Internet Engineering Task Force)
  + RFC (Request for Comments)
* W3C (World Wide Web Consortium)
* IANA (Internet Assigned Numbers Authority)

1. **TCP is a protocol.**

|  |  |
| --- | --- |
| connection-oriented | connectionless |

1. **UDP is a protocol.**

|  |  |
| --- | --- |
| connection-oriented | connectionless |

1. **State one advantage of using software provided by a cloud computing service provider.**

Downloaded when required. Pays for the service monthly.

Pay a monthly or annual fee, or per use. Cheaper than buying it outright.

Automatic updates of the software.

All users use the same version of software. Compatibility.

Can be accessed from anywhere and from different devices.

1. **DNS primarily uses which of the following transport layer protocols?**

|  |  |  |
| --- | --- | --- |
| SCTP | TCP | UDP |

1. **Give the full names of two protocols in the application layer of the TCP/IP reference model.**

Domain Name System (DNS)

Simple Mail Transfer Protocol (SMTP)

Hyper Text Transfer Protocol (HTTP)

1. **What is the first thing that a name server does when it seeks to find the IP address for a given domain name?**

Look up its cache for the information.

1. **What is the domain name of an authoritative name server for www.gmail.com?**

Use the 'dig' command. Look up the 'Authority Section'.

The 'Additional Section' will give you their IP addresses.

ns1.google.com.

ns2.google.com.

ns3.google.com.

ns4.google.com.