Self-Check Exercises: Lecture 1 Solutions

- 1) What are some factors in why computer networking so complicated?
 - Variety of hardware devices which must communicate with each other (legacy, modern)
 - Software being developed which must be interoperable
 - Numerous protocols and communication standards
 - Complicated terminology and acronyms
 - Wireless and Mobility challenges
 - etc...

2) Complete the following **definitions**

A network is a system for connecting computers using a single transmission technology

The internet is <u>a network of networks</u>

3) Who invented the internet?

No one person invented the internet, but DARPA financed initial research, and a number of universities devoted significant research personnel to developing and establishing communication protocols for interconnectivity hardware and software.

4) What is RFC

A repository for comments, and <u>the place</u> to find (and post) the adopted standards for networking – in addition to a major resource for students and researchers in networking.

5) What is the IETF

The Internet Engineering Task Force – who produces documentations which lay out standards for the Internet (without official decree).

6) Convert the following units:

800	В	=	6400	bits
12	KiB	=	98304	bits
3	MiB	=	25165824	bits
3	KiB	=	3072	bytes
120	В	=	120	bytes
12	Kbps	=	12000	bps
3	Mbps	=	3000000	bps
10	Gbps	=	10000000000	bps