

# HTTP & DNS Prelab:

1. [10 pts] Choose 5 HTTP status codes and describe each one.
2. [10 pts] List the 8 HTTP 1.1 methods and explain what they do.

*wget* and *telnet* are two commonly known command line tools for testing and debugging the HTTP protocol. Please answer the following questions by using your own computer's terminal or by ssh-ing to *unix.ic.ucsc.edu*.

3. [10 pts] Use *wget* on *example.com* to view the last modified date of the webpage. What was the http return status given and what command was used to do this?(The command should not download the file!)
4. [20 pts] Look up the *telnet* command. Now *telnet* to *towel.blinkenlights.nl*. What is the purpose of this telnet server?
5. [10 pts] In your own words describe what a DNS resource record (RR) is. Now using the command line tool *nslookup* find both the *MX* and *LOC* resource records of *ucsc.edu*. For *MX* for include the first authoritative and nonauthoritative servers, and why does this make sense? (Hint:gmail)
6. [10 pts] Now look for the RR *LOC* on *ucsc.edu* and list the coordinates described.
7. [10 pts] In your own words describe the differences between each of the follow two Top-Level Domains:
  - a. *.com* and *.net*
  - b. *.org* and *.edu*
  - c. *.gov* and *.mil*
  - d. *.ca* and *.mx*
8. [10 pts] What does the command *nslookup -type=ns . do*? Explain its output.
9. [10 pts] Describe what the command line tool *dig* does. Now run *dig* on *www.ucsc.edu* and *www.google.com*. What is the function of these hosts?
10. [10 pts] Now run *dig -x www.google.com*. What did you do differently?