**Comp 2322 Computer Networking**

**Homework Two Solutions**

**Total marks: 10 points**

**Questions:**

1. Consider the following string of ASCII characters that were captured by Wireshark when the browser sent an HTTP GET message (i.e., this is the actual content of an HTTP GET message). The characters *<cr><lf>* are carriage return and line-feed characters (that is, the Italianized character string *<cr>* in the text below represents the single carriage-return character that was contained at that point in the HTTP header).

GET /comp2322/index.html HTTP/1.1*<cr><lf>*

Host: www.comp.polyu.edu.hk*<cr><lf>*

User-Agent: Mozilla/5.0 (Windows;U; Windows NT 5.1; en-US; rv:1.7.2) Gecko/20040804 Netscape/7.2 (ax) *<cr><lf>*

Accept:ext/xml, application/xml, application/xhtml+xml, text/html; q=0.9, text/plain; q=0.8, image/png, \*/\*; q=0.5*<cr><lf>*

Accept-Language: en-us,en;q=0.5*<cr><lf>*

Accept-Encoding: zip,deflate*<cr><lf>*

Accept-Charset: ISO-8859-1,utf-8;q=0.7,\*;q=0.7*<cr><lf>*

Keep-Alive: 300*<cr><lf>*

Connection:keep-alive*<cr><lf>*

*<cr><lf>*

Answer the following questions: (4 points, one point each)

1. What is the URL of the document requested by the browser?

Ans:

URL: www.comp.polyu.edu.hk/comp2322/index.html.

1. What version of HTTP is the browser running?

Ans:

HTTP version 1.1.

1. Does the browser request a non-persistent or a persistent connection?

Ans:

The browser is requesting a persistent connection.

1. What type of browser initiates this message?

Ans:

The browser is Mozilla/5.0.

1. The text below shows the reply sent from the server in response to the HTTP GET message in the Question 1.

HTTP/1.1 200 OK*<cr><lf>*

Date: Sun, 10 Dec 2023 12:39:45GMT*<cr><lf>*

Server: Apache/2.0.52 (Fedora)*<cr><lf>*

Last-Modified: Fri, 01 Dec 2023 18:27:46 GMT*<cr><lf>*

ETag:“526c3-f22-a88a4c80”*<cr><lf>*

Accept-Ranges: bytes<cr><lf>

Content-Length: 3540*<cr><lf>*

Keep-Alive: timeout=max=100*<cr><lf>*

Connection: Keep-Alive<cr><lf>Content-Type: text/html; charset=ISO-8859-1*<cr><lf>*

*<cr><lf>*

<!doctype html public “-//w3c//dtd html 4.0 transitional//en”>*<lf>*<html>*<lf>*<head>*<lf>*<meta http-equiv=“Content-Type” content=“text/html; charset=iso-8859-1”>*<lf>*<meta name= “GENERATOR” content=“Mozilla/4.79 [en] (Windows NT 5.0; U) Netscape]”>*<lf>*<title> CMPSCI 222 / 591 / NTU-ST550A Fall 2020 homepage</title>*<lf>*</head>*<lf>*

<much more document text following here (not shown)>

Answer the following questions: (6 points, one point each)

1. Was the server able to successfully find the document or not?

Ans: The status code of 200 and the phrase OK indicate that the server located the document successfully.

1. What time was the document reply provided?

Ans: The reply was provided on Sunday, 10 Dec 2023 12:39:45 Greenwich Mean Time.

1. When was the document last modified?

Ans: The document index.html was last modified on Friday, 01 Dec 2023 18:27:46 GMT.

1. How many bytes are there in the document being returned?

Ans: There are 3540 bytes in the document being returned.

1. Did the server agree to set up a persistent connection?

Ans: The server agreed to set upa persistent connection

1. What are the first 5 bytes of the document being returned?

Ans: The first five bytes of the returned document are : <!doc.