**Comp 2322 Computer Networking Homework Two**

**Due time: 11:59pm, February 26, 2024, Monday**

**Total marks: 10 points**

**Submission Requirements:**

You need to submit the homework to the blackboard via Learn@PolyU on or before the due time. Late submission will cause the marks to be deducted 25% per day.

**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?

*The URL is* *www.comp.polyu.edu.hk/comp2322/index.htm..*

1. What version of HTTP is the browser running?

*1.1.*

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

*The browser requests a persistent connection, which is indicated by “Keep-Alive: 300”.*

1. What type of browser initiates this message?

*Mozilla/5.0 (Windows;U; Windows NT 5.1; en-US; rv:1.7.2) Gecko/20040804 Netscape/7.2 (ax)*

**2.** 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 httpequiv=“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?

*Yes, the server was able to find the document, as it replied “200 OK”.*

1. What time was the document reply provided?

*Sun, 10 Dec 2023 12:39:45GMT.*

1. When was the document last modified?

*Fri, 01 Dec 2023 18:27:46 GMT.*

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

*3540 bytes.*

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

*Yes, the server agreed to set up a persistent connection, since there are “Keep-Alive” in the connection.*

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

*“<!doc”.*

*Wang Ruijie 22103808d*