BIL 101 INTRODUCTION TO COMPUTER SCIENCE HW 04

Due to: 12/10/2017 - 09:00

Part 1: NETWORK (50 Points)

1. What are LAN and WAN?
   Which are WAN or LAN? Write your comments with at most 3 sentences for

   1. 2 or more computers connected
   2. Internet
   3. VPN
   4. Small office or a internet cafe

2. Describe seven layers of OSI (Each of them is at most 4 sentences).

3. What are the differences between TCP/ IP and UDP protocols? When you download video from youtube, which protocol is used? Why? (No more 5 sentences)

4. We have 5 routers labeled A-E. Suppose we have the forwarding tables shown below after RIP is stable. Let all links have cost 1.

Forwarding Table for A

Destination	Cost	Next Hop
A	0	-
B	1	B
C	2	B
D	1	D
E	2	D

Forwarding Table for B

Destination	Cost	Next Hop
A	1	A
B	0	-
C	1	C
D	1	D
E	1	E

Forwarding Table for C

Destination	Cost	Next Hop
A	2	B
B	1	B
C	0	-
D	2	E
E	1	E

Forwarding Table for D

Destination	Cost	Next Hop
A	1	A
B	1	B
C	2	B
D	0	-
E	1	E

Forwarding Table for E

Destination	Cost	Next Hop
A	2	D
B	1	B
C	1	C
D	1	D
E	0	-

(a) If a message is originated from A and a destination is E. Which path does it take?

(b) If a message is originated from C and a destination is D. Which path does it take?

Part 2: HTML (50 Points)

2. In this question, you will choose a topic related to computer science, research about it and then prepare a 2-3 linked HTML pages about your topic and publish it using https://pages.github.com/ so we will check your page by entering to yournameSurname.github.io. (if you have more than one name, choose only your first name and surname : firstnameSurname.github.io.) Be sure that your account user name includes your real name and surname. You can choose any topic that you wonder about computer science and some example research topics are given below: a. A biography of a computer scientist b. Introduction of a computer device such as monitors or printers and developments about it over years c. The history of computer d. Introduction of a popular computer application e. Introduction to Artificial Intelligence

- The format of the report is given below:
- The firstHTML page must have your name, your student number and link to the second HTML pages
- The second pages must include table prepared With HTML including some digital values related to the topic. The table must have at least 5 row and 5 columns. Each column must have titles.
- The Third HTML pages must have an embedded video related with the topic.
- All pages includes at least two images related to your topic.
- All pages must have heads, paragraphs (at least 20 sentences.) and images related to the topic.
- In the homework, each images must have descriptions İn its below.
- Each page- background must be coloured.

 a. Font type and size of the HTML pages are free. b. All the headings should be bold. c. Your paragraphs should be aligned to both sides.

Important Issues:

- You can ask Tugbagul ALTAN AKIN (tualtan@gtu.edu.tr) for any questions about HW4. Room Number: 120 - HCI LAB.
- You must submit a zip file called HW4_STUDENTNAME_STUDENTSURNAME_STUDENTNUMBER.zip into moodle **due to:** 12/10/2017 - 09:00 am.
- Zip file includes part1 and part2 folders. You can prepare .doc, .docx, .pdf or scanned papers **for part 1** and .html file and the other needed files **for part 2**.
- You can prepare your Hw4 in free-language (Turkish or English).
- Upload your HW4_STUDENTNAME_STUDENTSURNAME_STUDENTNUMBER.zip file to the "HW4 Upload" link on moodle.