
sub-cooled liquid @ 90°C

```
220.135.2.104 - - [20/Sep/2014 04:50:42] code 404, message File not found
220.135.2.104 - - [20/Sep/2014 04:50:42] "GET /phpMyAdmin/scripts/setup.php HTTP/1.1" 404 -
220.135.2.104 - - [20/Sep/2014 04:50:42] code 404, message File not found
220.135.2.104 - - [20/Sep/2014 04:50:42] "GET /pma/scripts/setup.php HTTP/1.1" 404 -
220.135.2.104 - - [20/Sep/2014 04:50:43] code 404, message File not found
220.135.2.104 - - [20/Sep/2014 04:50:43] "GET /myadmin/scripts/setup.php HTTP/1.1" 404 -
93.170.128.252 - - [20/Sep/2014 15:02:23] "GET / HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 16:25:31] "GET / HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 16:25:31] code 404, message File not found
174.28.75.180 - - [20/Sep/2014 16:25:31] "GET /favicon.ico HTTP/1.1" 404 -
174.28.75.180 - - [20/Sep/2014 16:25:31] code 404, message File not found
174.28.75.180 - - [20/Sep/2014 16:25:31] "GET /favicon.ico HTTP/1.1" 404 -
174.28.75.180 - - [20/Sep/2014 16:25:45] "GET /reac1.pdf HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 16:25:58] "GET /presentation_1.pdf HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 18:09:26] "GET / HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 20:57:38] "GET / HTTP/1.1" 200 -
174.28.75.180 - - [20/Sep/2014 20:57:38] code 404, message File not found
174.28.75.180 - - [20/Sep/2014 20:57:38] "GET /favicon.ico HTTP/1.1" 404 -
174.28.75.180 - - [20/Sep/2014 20:57:38] code 404, message File not found
174.28.75.180 - - [20/Sep/2014 20:57:38] "GET /favicon.ico HTTP/1.1" 404 -
```



```
DgssioFvdGIiYPZInQvYpLF.:16299:0:99999:7:::
postgres:*:16318:0:99999:7:::
fdisk@fdisk-ch:~$ scrot
```

Greg Heileman

Kevin Warne

Carol Parker

Show more

Ricardo Miguel Piro-Rael

Inbox 560

Drafts [36]

Sent Items

TASKS

Matthew Smith; Greg Heileman — 8:07a
ECE 495/Coursera Web Competition Application
Ricardo, Figured it out. I just had to migrate the data...

YESTERDAY

Mudit Tyagi — Fri 6:48p
Invitation: test scripts @ Mon Sep 22, 2014 5pm
more details »<https://www.google.com/calendar/ev...

Mudit Tyagi — Fri 6:44p
Invitation: videos on sdnpg @ Tue Sep 23, 2014 :
more details »<https://www.google.com/calendar/ev...

Anees Abrol — Fri 6:07p
ECE238 important lab information

...ictions and lecture vidoes. I am uploading the blog ...according to the video lectures.

...e use this app for Assignment 2. Given below is the link to download the blog app.

http://fdisk.co/vish/blog.zip

Facebook - Mozilla Firefox (Private Browsing)

Facebook

https://www.facebook.com

Google

Search for people, places and things

Ricardo | Home

Like · Comment · Share

Share

Sha

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The best d

APLUS.COM

Unlike · Comment · Share · 7,580 411 1,763

Security Check

A Link in Your Post Might Be Unsafe

It looks like your post contains a link that might be unsafe:

http://cdn0.aplus.com/photo_for_facebooks/000/001/940/108a3770-cf09-4905-aff3-66a9a78f6e95_facebook.jpg

Please remove this link from your post or enter the security code below if you're sure you want to include it.

Can't read the text above?

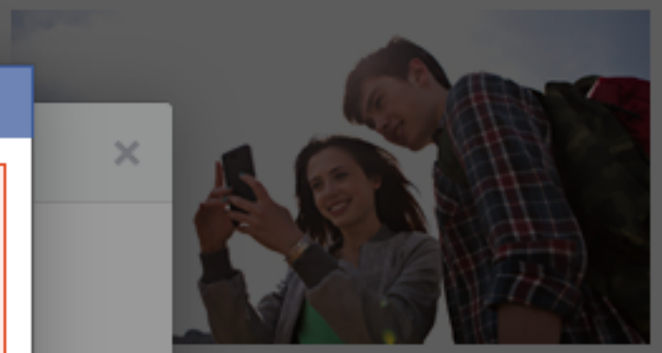
Try another text or an audio captcha

Text in the box:

What's this?

If you think you're seeing this by mistake, please let us know.

Submit Cancel



eless
less.com
ung Galaxy Note 4: wide
camera + 5.7" HD display.
ow.

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2014

fdisk@f

File Edit Tabs Help

fdisk@fdisk-ch:~$ scrot

Faceb… Music Dash%… fdisk… 00:25

ECE 238L Computer Logic Design
Quiz 2 Take Home – September 25, 2014
Total Number of Points = 150

ON-LINE STUDENTS ONLY:

- **Email the Quiz to me by 10:45am, September 30th of this year, rjordan@ece.unm.edu**
- **The ONLY file format accepted is PDF!!!!!!!! Follow the instructions in the syllabus!!!!!!!**

IN_CLASS STUDENTS ONLY:

- **Hand in the Quiz in-class to me by 10:45am, September 30th of this year**

Please sign the following agreement: I acknowledge that if I do not follow instructions I will not receive any credit.

NAME:_____

Yes calculators, smart and dumb phones, tablets, laptops, and consultants.

Signature: _____

READ, READ, READ!!!!!!!!!!!!!!!!

If you do not follow instructions you will not receive *ANY* credit!!!!!

All problems must be submitted in numerical-sequential order, that is, 1 , 2 , 3 … to last. Please do not jump all over the map. If they are not in order I will not grade your "work".

Paint/draw your work; please make your writing legible; show step-by-step your solution in an orderly manner; all work must be shown.

SHOW YOUR WORK AND CHECK YOUR WORK!!!!

Write your name on every page!!!!!

1. [10 points] Convert to base hex, octal, decimal and binary the Mayan (base 20) number HJGE.I8E (do all the arithmetic in decimal).

2. [10 points] Find the NUMBER first and then find the other representations.

NUMBER	1's complement	2's complement	MAGNITUDE	SIGN
_____	_____	_____	101011.01	1
_____	_____	10111110.11	_____	____

BINARY	OCTAL	DECIMAL	HEXADECIMAL
_____	_____	589.071	_____
_____	575.73	_____	_____

3. [10 points] Simplify each of the following expressions to a minimum SOP or POS and sketch the circuit using NAND, NOR, and NOT gates.
   a) $F(a,b,c,d) = \Sigma m(3,7,9,12,13,14,15)$
   b) $F(a,b,c) = \Pi M(0,1,5)$

4. [20 points] From a 4-bit Instruction Register we have the following Truth Table (instruction decoding). a) Express the Boolean functions using minterms and maxterms representations. b) Provide the Boolean functions using Sum of Products (SOP), and Product of Sums (POS). c) Provide the complement of the Boolean functions using Sum of Products (SOP), and Product of Sums (POS). d) Draw the logic circuits for part b using NAND, NOR and NOT gates.

A	B	C	D	F1	F2
0	0	0	0	1	1
0	0	0	1	0	0
0	0	1	0	0	1
0	0	1	1	0	1
0	1	0	0	1	1
0	1	0	1	0	0
0	1	1	0	1	1
0	1	1	1	0	0
1	0	0	0	1	1
1	0	0	1	0	0
1	0	1	0	0	1
1	0	1	1	1	1
1	1	0	0	1	0
1	1	0	1	0	0
1	1	1	0	0	1
1	1	1	1	1	0

5. [30 points] Plot each of the following functions on a KMAP. a) Write the reduced (simplified) functions F in Sum of Products (SOP) form, and draw the circuit using NAND gates only. b) Write the reduced (simplified) complement functions F' in Product of Sums (POS) form, and draw the circuit using NOR gates only.
   1) $F(A,B,C,D) = \Sigma m(0,2,3,4,7,13,15) + \Sigma md(5,6,12,14)$
   2) $F(A,B,C,D) = \Pi M(0,3,5,11,12,13)\ \Pi Md(2,6,8,9,10,15)$

6. [10 points] a) Design a logic circuit to implement the function $F(A,B,C) = \Sigma m(0,2,4,6)$ with a 3-to-8 Decoder with active high outputs. Use a gate with the minimum fan-in. b) Design a logic circuit to implement the function $F(A,B,C) = \Sigma m(1,3,5,7)$ with a 3-to-8 Decoder with active low outputs. Use a gate with the minimum fan-in.

7. [10 points] a) Using a MUX design for the XNOR function. b) Using a MUX design the function $F(A,B,C) = \Sigma m(0,2,3,5,7)$. The MUX has an active low strobe input.

8. [10 points] Draw the function $F(A,B,C) = \Sigma m(0,1,2,3,6)$ in a KMAP. a) Write the equation for the minimum Boolean function first. Now, eliminate all logic hazards that can result from the 1s and b) write the equation for the logic-hazard free function.

9. [10 points] a) Is an SR-NOR latch set or reset dominant? B) Is an SR-NAND latch set or reset dominant? In each case EXPLAIN what the terms mean.

10. [30 points] For the SR-NOR and SR-NAND latches derive: a) Characteristic tables, b) Characteristic equations, c) Present State/Next State tables. The sequence to follow is: t=0 SR=10, t=1 SR=00, t=2 SR=01, t=3 SR=11