Department of Computer Science and Engineering

Faculty of Engineering, University of Moratuwa

CS 3032 – Computer Network

B. Sc. Engineering Semester 4

Student Name   ………………………………………………………………………..

Index No   …………………..   Field   CSE

Group   …………………..   Date   ………………………………..
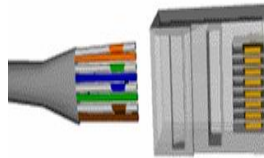
Lab 01 – Orientation

Objective

- Identification of equipment
- Identification KVM switch operation
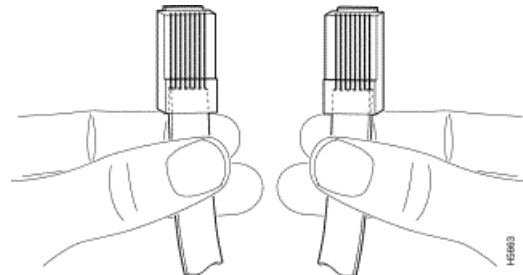- Identification Patch panel and cabling

Procedure

Identify RJ45 (used with UTP CAT5 cables) pin configurations for straight through and crossover cables.

Identifying cables used in communication

What are the three types of commonly used RJ45 cabling?

1.

2.

3.

How you differentiate those cables by just observing the RJ45 male connector?

………....

………....

………....

What are the active wires used in communication?

Pin 1		Pin 5	
Pin 2		Pin 6	
Pin 3		Pin 7	
Pin 4		Pin 8	

Identify the pairs used as:

TX :   Rx :

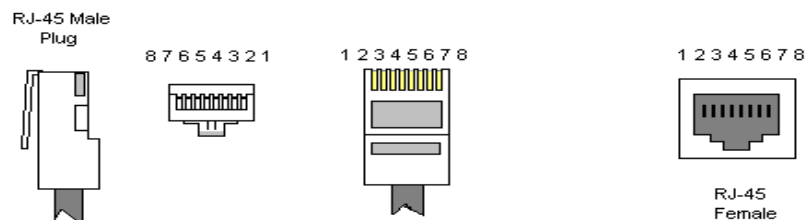
How does the wiring sequence changes for crossover cables?

Standard end	Crossover end
Pin 1	Pin 1
Pin 2	Pin 2
Pin 3	Pin 3
Pin 4	Pin 4
Pin 5	Pin 5
Pin 6	Pin 6
Pin 7	Pin 7
Pin 8	Pin 8

Note:

RJ-45 Male Plug

87654321   12345678   12345678

RJ-45 Female

Page 1 of 2

Color Standard
EIA/TIA T568A

Ethernet Patch Cable

	RJ45 Pin#			Pin# RJ45		
TX+	Green/White Tracer	1		1	Green/White Tracer	PR 3
TX−	Green	2		2	Green	
RX+	Orange/White Tracer	3		3	Orange/White Tracer	PR 2
	Blue	4		4	Blue	PR 1
	Blue/White Tracer	5		5	Blue/White Tracer	
RX−	Orange	6		6	Orange	PR 2
	Brown/White Tracer	7		7	Brown/White Tracer	PR 4
	Brown	8		8	Brown	
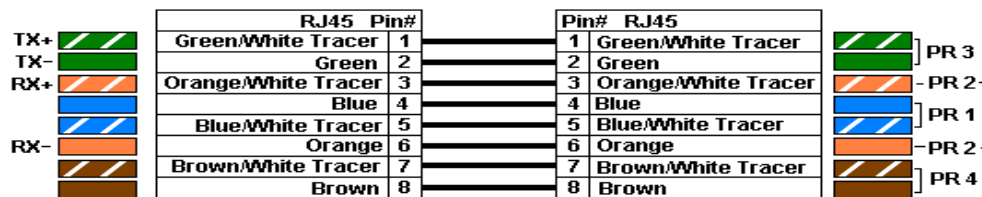
Color Standard
EIA/TIA T568A

Ethernet Crossover Cable

	RJ45 Pin#			Pin# RJ45	
	Green/White Tracer	1		1	Orange/White Tracer
	Green	2		2	Orange
	Orange/White Tracer	3		3	Green/White Tracer
	Blue	4		4	Brown/White Tracer
	Blue/White Tracer	5		5	Brown
	Orange	6		6	Green
	Brown/White Tracer	7		7	Blue
	Brown	8		8	Blue/White Tracer

"A" is earlier