

## CN 310 ASSIGNMENT QUESTIONS

**Submission of Documents =>January 8, 2016**

**Presentation will start from January 11, 2015**

### *General Instructions:*

- Each group takes one FULL QUESTION.
- Each member of the Group has to take a part of the topics that he/she will present
- Prepare a 7-14 pages word document explaining about the TOPIC and its subtopics.
- Use your own language in preparing the Document. Avoid PLAGIARISM!!
- Illustrate with diagrams and pictures where necessary. Use high quality diagrams and pictures for visibility.
- Include References books/materials used in each full topic at the end of the documents
- Update your materials to include the coverage of Windows 7 and 8.
- Each received document WILL BE CHECKED FOR PLAGIARISM before being marked.
- After submitting the documents, comments will be given to enrich the assignments, from which **PowerPoint Presentations** will be extracted for presentation scheduled to start from **January 11, 2015**.

### TOPICS PER GROUP

*Explain each topic and subtopic from its simplicity to its complexity. Start from the basics to the more advanced part of it.*

#### GROUP #1

##### **I/O PORTS AND CONNECTIONS**

- a. USB port types, speed and troubleshooting
- b. IEEE-1394 port features, installation and troubleshooting
- c. HDMI port and applications
- d. USB 1.1 vs. 2.0 vs. 3.0 speed and distance characteristics
- e. Connector types: A, B, mini, micro
- f. Firewire 400 vs. Firewire 800 speed and distance characteristics
- g. SATA1 vs. SATA2 vs. SATA3, eSATA, IDE speeds

#### GROUP #2:

##### **PS AND SYSTEM COOLING**

- a. PS Ratings
- b. PS Form factors and connections
- c. Troubleshooting PS
- d. PS Hazards and avoidance

- e. Power protection Types
- f. System cooling

### GROUP #3

#### ***DISPLAYS***

- a. Display Types (CRT, LCD, LED, plasma, Data Projector and OLED) and their applications
- b. Display settings (Resolution, Color quality, Refresh rates)
- c. Troubleshooting of Display devices

### GROUP #4

#### ***STORAGE DEVICES***

- a. Drive Interface types (PATA, SATA and eSATA); performance characteristics; configurations)
- b. Hard Disk Drives(PATA, SATA and eSATA performance factors)
- c. SSD and Flash Drives
- d. RAID (Creating a SATA RAID array)
- e. Optical Drives (Comparing CD, DVD and Blue-Ray Drives Types)
- f. Troubleshooting HDD, SSDs, and RAID Arrays

### GROUP #5

#### ***MOTHERBOARDS***

- a. System and I/O Bus
- b. Form Factors
- c. Memory slots
- d. Expansion slots
- e. Installing motherboards
- f. Troubleshooting motherboards
- g. Chipsets

### GROUP #6:

#### ***ADAPTER CARDS***

- a. Common types of adapter cards
- b. Installation of adapter cards
- c. Troubleshooting of adapter cards
- d. Performing driver and firmware updates

### GROUP #7

#### ***PROCESSORS***

- a. Overview of processor differences
- b. Processor manufacturers and their processors produced from 1995 to date
- c. CPU Technologies

- d. GPU and CPU
- e. Installing a processor
- f. Troubleshooting the processor