

Menoufiya University
 Faculty of Engineering
 Shebin El-Kom
 Postgraduate-PhD
 Second semester



Subject/code: Condition Monitoring of High Voltage Equipment /ELE 710
 Time Allowed: 3 hours
 Date: 30-5-2015

Allowed Tables and Charts: (None), Total marks: 100

Answer ALL Questions:

Question (1)

(30 Marks)

- (1-a) Discuss the main components of a condition monitoring system.
- (1-b) Discuss the importance of condition monitoring in high voltage applications?
- (1-c) Write short notes on the degradation timescale.

Question (2)

(35 Marks)

- (2-a) Discuss how fluid pressure monitored in high voltage cables.
- (2-b) Explain the temperature monitoring in cable conductor considering ladder thermal equivalent network.
- (2-c) Discuss the partial discharge monitoring in GIS using UHF technique.

Question (3)

(35 Marks)

- (3-a) Explain how to determine fault type in the transformers.
- (3-b) Discuss how dielectric parameters monitored in the transformers.
- (3-c) Discuss how partial discharge monitored in the transformers.

Good Luck Prof. Mohamed A. Izzularab
 Dr. Amr M. Abdul-Hady

This exam measures the following ILOs												
Skills	Knowledge & Understanding Skills				Intellectual Skills				Professional Skills			
	a1-1	a1-2	a1-3		b5-1				c2-1	c3.1	c4-1	
Question Number	Q1-a	Q1-b	Q1-c		Q2-a,Q3-a				Q2-b	Q3-b,c	Q2-c	