

Menofiya University Faculty of Engineering Tim Allowed: 3 hours Post- Graduate Exam, 2017-2018 Date of Exam: / 5 /2018		Production Diploma (500 Level) Subject : Nanotechnology Code: PRE Total Mark: 100 Marks Production Eng. Dep.
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Answer all the following questions

QUESTION NO. 1

(30 Mark)

A) Defined the followings terms and cite their applications:-

- 1) Nanoscience
- 2) Nanotechnologies
- 3) Nanostructured material
- 4) Dye-sensitized Nano solar cells
- 5) Graphene

QUESTION NO. 2

(20 Mark)

Outline the specific properties of materials at nanoscale and then declare what makes NANO special?

QUESTION NO. 3

(30 Mark)

Describe the different methods for manufacturing nanostructures.

QUESTION NO. 3

(20 Mark)

Cite the applications of carbon nanotubes in the followings sectors:-

- Energy
- Medicine
- Transportation
- Civil engineering

***** GOOD LUCK *****

Question number	Q1	Q2	Q2	Q3	Q2	Q2	Q3	Q4	Q2	Q3	Q4	Q4
Skills	a-1- 1	a-2- 1	a-3- 1	a-4- 1	b-1- 1	b-2- 1	b-4- 1	b-4- 1	c-1- 1	c-2- 1	c-4- 1	c-4- 1
	Knowledge& understanding skills				Intellectual skills				Professional Skills			

Prof. Dr. Ahmed R. El-Desouky