

Menoufiya University  
Faculty of Engineering  
Shebin El-Kom  
Final Term Exam  
Academic Year: 2014-2015  
Date: 26/5/2015



Year: Third  
Department: Mechanical Power Eng.  
Subject: Air Pollution from Combustion  
Code : MPE314C  
Max. Grade: 70 marks  
Time Allowed: 3 hours

This exam measures ILOS no.: (A6, A11, A18), (B5, B9, B10), (C15), (D1, D2)

### First Part

Answer the following questions:

#### Question (1)

(15 marks)

1.1 Define the following terms:

a) Air pollution

b) Dust

c) Mist

1.2 Explain in details the global warming phenomenon? What are the main gases that participating in this phenomenon

1.3 Specify the types of air pollution.

1.4 Explain with sketch the characteristics and the position of ozone layer? What are the harmful effects due to the depletion in ozone layer?

1.5 Distinguish between primary and secondary pollutants.

#### Question (2)

(20 marks)

2.1 Define the following terms:

a) Smoke

b) Smog

c) Crankcase blowby

2.2 What are the main sources of pollutants from petrol engine?

2.3 List three -pollutant emissions from spark ignition engine (S.I.E).

2.4 What will be the consequence if a diesel fuel is used in the SI engine?

2.5 Report the factors affecting emission from spark ignition engine.

