

**LOKMANYA TILAK COLLEGE OF ENGINEERING**  
**DEPARTMENT OF APPLIED CHEMISTRY ( 2016 -2017)**

**INTERNAL TEST NO :- 01**

**SET B**

**Subject :- Applied chemistry - II**

**Date : / /17**

**Duration :- 01 hr.**

**Marks :- 15**

- Q. 1 Answer **all** the questions from the following ( 2 marks each ) **06M**
- a) List the various test done under ultimate analysis of coal and give significance of determination of oxygen. [CO3]
  - b) What is Knocking? Name any two antiknock agents of petrol. [CO3]
  - c) Mention any four advantages of catalytic cracking over thermal cracking. [CO3]
- Q. 2 a) Calculate the weight and volume of air required for complete combustion of 1Kg of coal containing the following **04M**  
C= 65%, H = 4%, O = 7%, N = 3%, Moisture = 15%, rest ash [CO3]  
( Molecular weight of air - 28.94gm )

OR

- b) Explain refining of petroleum with suitable diagram. [CO3]
- Q.3 a) What are composites? Define the terms i) Matrix phase **05M**  
ii) Dispersed phase with examples. State functions of Matrix phase. [CO4]

OR

- b) Write a note on 'Sandwich panel' composite with neat diagram [CO4]