

**B.Tech. SEM -V (Chemical 2014 Course (CBCS) : WINTER - 2018**  
**SUBJECT: ELECTIVE-I COMBUSTION ENGINEERING**

Day: Saturday  
Date: 01/12/2018

**W-2018-2380**

Time: 02.30 PM TO 05.30 PM  
Max. Marks: 60

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
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**Q.1** Discuss the present scenario and consumption pattern of fuels. **[10]**

**OR**

Describe the different types of fuels in detail.

**Q.2** Illustrate classification of coal based on its grading. **[10]**

**OR**

Describe different types of coal-combustion techniques.

**Q.3** Describe the exploration methods for crude petroleum. **[10]**

**OR**

Draw a schematic of coke- oven and describe its construction and working.

**Q.4** Describe the production of producer gas with a neat process flow diagram. **[10]**

**OR**

Describe the production of water gas with a neat process flow diagram.

**Q.5** Describe the construction and working of combustion furnace. **[10]**

**OR**

Describe the steps for combustion air calculation.

**Q.6** Write short notes on: **[10]**

- i) Rotary kiln incineration
- ii) Fluidized bed incineration

**OR**

- i) Boilers
- ii) Application of incineration

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