

Ref No: Ex/Met/ChE/T/226/2017

B. MET. ENGG. 2nd YR. 2nd SEM EXAMINATION, 2017

Subject: FUEL AND COMBUSTION Time: Three Hours Full Marks: 100

Answer any five of the following questions

1. Explain Saylor's coal classification chart. 20
2. Describe the process details and reaction occurring in different zones of Blast Furnace. 20
3. Explain coal processing. 20
4. Discuss how producer gas is manufactured using mixed blast with special reference to the reaction occurring in gas producer. 20
5. a) Mention different methods used to classify Crude Petroleum. 8+12=20
b) Describe Secondary Refining Process of Crude Petroleum.
6. Classify crude petroleum based on IOP characterization factor. Mention name, boiling points and uses of petroleum products obtained from ADU & VDU.
7. Write short notes on (any four) 5X4=20
 - a. Petrological Components of Coal
 - b. Pipe Still Heater.
 - c. Low temperature Coal Carbonization.
 - d. Low Temperature Oxidation of coal.
 - e. "Derived Theory" and "In-Situ Theory" of coal.