

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. SEMESTER: V

MINING ENGINEERING

Subject Name: **Fuel Technology (Institute Elective-II)**

Subject Code: **152206**

Teaching Scheme				Evaluation Scheme		
Theory	Tutorial	Practical	Total	University Exam (Theory) (E)	Mid Sem Exam (Theory) (M)	Practical (I)
4	0	2	6	70	30	50

Sr. No.	Course Content
1.	Fuels: Wood, peat, Lignite Bituminous coals, Anthracite Physical / Banded constituents of coal, Chemical constituents of coal-broad classification.
2.	Coal Analysis: Proximate analysis, Ultimate analysis of coal.
3.	Calorific Value: Determination of calorific value, Carbonisation of coal, Low temperature and high temperature, Carbonisation methods.
4.	Cooking Coal: Cooking coal and its properties, Caking index, Shattering index, Micum index.
5.	Types of Coke: Cokeoven/ coal gas, Producer gas water gas, etc, Production and consumption of coke for domestic and industrial purpose, Total amount industry wise and country wise.
6.	Production and Consumption of Coal: Steel, Cement, power, Railways, Chemicals and total for country, Norms of consumption of coal industry wise.
7.	Liquid Fuels: Petroleum products, Mining of petroleum.
8.	Gaseous Fuels: Natural gas, Coal gas, Producer gas, Water gas.

Reference Books:

1. Chemistry, Jain & Jain.
2. Elements of Mining Tech (Vol-I), D. J. Deshmukh.