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10MN661

Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Fuel Technology and Coal Preparation

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting atleast TWO questions from each part.***

PART – A

1 a. Write a detailed note on sources of energy by fuels. **(10 Marks)**
b. Write a detailed note on gasification of solid fuels. **(10 Marks)**

2 Write short notes on :
a. Ultimate analysis
b. Proximate analysis
c. Calorific value
d. Coking of coal. **(20 Marks)**

3 a. Explain the mechanism of combustion. **(10 Marks)**
b. Explain the coal tar processing. **(10 Marks)**

4 What are the properties to be considered for testing the petroleum and petroleum products, explain each in detail. **(20 Marks)**

PART – B

5 a. Write a note on need and scope of coal beneficiation in India. **(10 Marks)**
b. What are the different techniques for coal beneficiation? Explain gravity and pneumatic separators. **(10 Marks)**

6 Write a note on float and sink test and what are the procedures for float and sink test. **(20 Marks)**

7 a. Write a note on washability index and washability number. **(10 Marks)**
b. Write a note on interpretation of tromp curve. **(10 Marks)**

8 What are the unit operations involved in coal washing? **(20 Marks)**

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

VTU-01-02-2020 09:05:37am AY - AY - AY - AY - AY
01-02-2020 09:15:20am AY - AY - AY - AY - AY