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10MN661

Sixth Semester B.E. Degree Examination, June/July 2019
Fuel Technology and Coal Preparation

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Define energy. Explain advantages and disadvantages of nuclear energy. (10 Marks)
b. Explain classification of fuels with a suitable examples. (10 Marks)
- 2 a. Give a classification of coal based on their rank. (10 Marks)
b. Define Calorific value. Explain proximate analysis of coal. (10 Marks)
- 3 a. With neat sketch, explain low temperature carbonization of coal. (10 Marks)
b. Give an account of mechanism of combustion process. (10 Marks)
- 4 a. Define petroleum. Explain how petroleum is processed. (10 Marks)
b. Define natural gas? Explain the uses of methane gas in coal mines. (10 Marks)

PART – B

- 5 a. Explain scope for coal beneficiation in India. (10 Marks)
b. How you will operate a coal mine by using beneficiation plants. (10 Marks)
- 6 a. Explain the procedure to follow float and sink test. (10 Marks)
b. With a neat graph explain washability curve and its use in coal mines. (10 Marks)
- 7 a. Explain interpretation of tramp curve near gravity material. (10 Marks)
b. Define washability of coal. Explain washability index. (10 Marks)
- 8 a. Write a note on equipments used in coal beneficiation. (10 Marks)
b. Explain principles we used to coal washing systems. (10 Marks)

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.