

Code No: 158DV

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech IV Year II Semester Examinations, July/August - 2022

SOLID FUEL TECHNOLOGY

(Electrical and Electronics Engineering)

Time: 3 Hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

- 1.a) What do you understand by the terms – type, rank, class and grade of coal?
- b) What are petro logical constituents in coal? How do they affect its property? [7+8]
2. What are the characteristics of major coalfields? [15]
- 3.a) What are the applications of coal petrography?
- b) Explain the Air dry basis and Dry mineral matter free basis of coal analysis. [7+8]
4. Differentiate between Intrinsic mineral matter and extrinsic mineral matter. [15]
5. What are the two different methods of coal analysis? What different constituents are analysed under these two types of coal analysis? Give their utility. [15]
6. Describe the changes in coal fluidity with temperature noted by Gieseler plastometer test. How is this test useful in coke making process? [15]
7. How are the physical properties like colour, fracture and specific gravity of coal constituents useful in coal cleaning process? [15]
8. Discuss in detail about dry and wet methods of coal cleaning. [15]

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