



Continuous Assessment Test – I

Programme Name : B.TECH

Course Name & Code: CHE2006 Fuels & Combustion

Class Number: VL2019205003872 Slot:D2+TD2 Exam Duration: 90 Mins Max. Marks: 50

Section – A

(3 x 10 = 30 Marks)

1. Describe various stages of coalification.
2. Explain various methods to report analysis of Coal
3. Describe the construction, working principle and method to calculate calorific value using bomb calorimeter

Section – B

(1 x 20 = 20 Marks)

4.

Proximate Analysis %				Ultimate Analysis %					C.V., kcal/kg
Moisture	Volatile Matter	Ash	Fixed Carbon	C	H	O	N	S	(exp. value)
2	30	16	52	86	6	5	2	1	6900

The proximate analysis (% air dried basis), the ultimate analysis (% d.m.m.f. basis) and experimental gross calorific value (kcal/kg on air dried basis) is given above:

Calculate its gross calorific value (C_G , kcal/kg) using

- (i) Modified Dulong Formula
- (ii) Goutal Formula
- (iii) CFRI Formula
- (iv) Difference of Gross and Net C.V. of coal on
 - (a) Air dried basis
 - (b) Complete dry basis



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