

VII SEMESTER B.TECH (CHEM. ENGN.)
END SEMESTER EXAMINATION DEC 2022
CHE 4063 FUELS AND COMBUSTION

Type: DES

- Q1. Compare and contrast between the various methods of coal cleaning. (4)
- Q2. Discuss any three properties of coal that determine its utilization in industry. (3)
- Q3. Differentiate between net and gross calorific value of coal. Explain their significance. (3)
- Q4. Discuss any two properties of liquid fuels that determine their suitability for a gasoline engine. (2)
- Q5. Build a flowchart of the major processes/ operations in a petroleum refinery. (4)
- Q6. Outline the significance of each of the processes mentioned in question 5 (4)
- Q7. Gaseous fuels are better than solid or liquid fuels. Justify this statement. (2)
- Q8. Discuss two properties of gaseous fuel that determine its utilization in industry. (4)
- Q9. Elaborate on the classification of gaseous fuels. (4)
- Q10. Define fuel combustion efficiency. Elaborate on the causes of loss in fuel combustion efficiency. (4)
- Q11. Distinguish between theoretical flame temperature and actual flame temperature (3)
- Q12. Discuss any three flame characteristics and their significance. (3)
- Q13. Suggest factors to be taken into account while designing a burner. (4)
- Q14. Explain the principle and working of a furnace. (3)
- Q15. What is atomization in burners. How is it achieved? (3)