
ANSWER ANY FIVE QUESTIONS ALL QUESTIONS CARRY EQUAL MARKS

1. Explain the importance of energy and material balance in a process plant. Why they are computed?
2. What is BOD? Explain its significance with reference to water pollution. How it is measured and controlled.
3. (a) How chromite bricks are manufactured? What are their applications?
(b) Give an account of the properties of dolomite refractories.
4. Explain briefly about
 - (a) Sorel cement
 - (b) Blast furnace slag cement
 - (c) Role of Gypsum
 - (d) Coloured cement
5. Write the working principles of the following with neat sketches
 - (a) Recuperative pot furnace
 - (b) Regenerative tank furnace
6. (a) Describe how carbon dioxide can be recovered from the furnace gases with a neat diagram.
(b) Write briefly about the liquid carbon dioxide.
7. Describe the production of nitric acid from ammonia.
8. (a) How is uranium occurring in nature? Write about the ores of uranium?
(b) Discuss some physical properties of uranium and its compounds?
