

Question Bank (G scheme)

Name of subject: FUNDAMENTAL OF CHEMICAL ENGINEERING Unit Test :I

Subject code: 17206

Course : CH/ME

Semester: II

Chapter 1 (20 marks)

3 marks question

1. Name any two 1. Petrochemical Industries 2. Pharmaceutical Industries
2. Define and give the unit in SI of the following
 - a. Force
 - b. Density
3. Define the following
 - a. Pressure
 - b. Energy
4. Convert 100Kg/hr into gm/sec
5. Define 1) molarity 2) molality 3) Normality

4 marks question

6. Convert the following
 - a) 1.2 Kg/m³ into gm/cm³
 - b) 200 Btu/hr into cal/sec
7. A mixture contains 200 gm NaOH and 300 gm KOH. Express the composition of mixture by weight and by mole (at wt of Na=23, O=16,H=1, K=39)
8. Calculate gram moles of H₂SO₄ present in 200 gram H₂SO₄. (At wt of S=32)
9. 100 gm NaOH is dissolved in water to prepare 1200 ml solution. Calculate
 - a) Molarity and b) Normality of the solution
10. 10. Define a) partial pressure b) pure component volume
11. Define a) Daltons law b) Amagat's law

Chapter 2(30 marks)

3 marks question

12. Explain sedimentation
13. Explain filtration with a labeled diagram
14. What is size reduction? What are the advantages of size reduction?
15. What are the principles by which size reduction is done? Give one industrial equipment each using these principles.
16. What is screening? Define a) mesh b) oversize particle

4 marks question

17. What are the various principles by which solid mixture can be separated? Name the equipment used for the separation.
18. Explain gas absorption with an example.
19. Define sensible heat and latent heat.
20. Explain distillation in detail as a mass and heat transfer operation.
21. Explain different modes of heat transfer with examples.
22. Differentiate between sedimentation and filtration.
23. What is drying? Explain with a diagram.
24. Draw the symbol of a) pack column b) jaw crusher c) ball mill