

Reliance . 2015

1. Absorption Factor in counter current operation?
2. Mach No. is?
3. Schedule No. is?
4. Optimum reflux ratio is
a) $1.2 R_m \sim 1.5 R_m$ b) $2 R_m$ c) $3 R_m$
5. Volute in Centrifugal pump is for?
6. Virial state Eqn.?
a) $PV = RT$ b) $PV = aT + bT^2 + cT^3$ c) $(P-a) (V-b) = RT$
7. Which pump is used against a pres of 1500 Kg/cm^2 ?

Ans. Plunger

8. For which case Thiele Gedde model is used?
9. In Orsat analysis N_2 is absorbed using?
10. Carnot Cycle Defination
11. Transformation of solid to gas?
12. Eqn. for relative volatility?
13. Equivalent weight of $\text{Na}_2 \text{CO}_3$?
14. Which has higher B.P. Solution or Solvent?
15. Effect of temperature on sp. Heat.
16. Effect of temperature on exothermic reaction conversion.
17. Adiabatic compression for 1st cycle.
18. In which reactor exit and reactor composition is same
19. WHSV one ques. (Weight Hourly Surface Volume) Catalysis
20. Equivalent Diameter for non spherical particals
21. Poissouille Eqn.?
22. Pump efficiency, Head curve?
23. Gas liquid separator Equation?
24. Why high air flow rates r not allowed in furnaces
25. Incomplete combustion is indicated by

- a) CO emission b) Co2 emission
26. Units for H T Coeff.
27. Proportionality constant in Fourier law?
28. Corrossive Fluids r generally passed through tube side or shell side?
29. Floating head in H E is used for?
30. Catalyst weight one ques.
31. jH factor (Reynold anology)
32. Over all H T Coefficient is influenced by
- a) hi b) ho
33. Feed forward controller setting parameters
- a) load
34. Which controller is used for stability in settings? Ans. PID
35. Condenser/ Subcooler Eqn.
36. Extensive property
- a) pressure b)viscosity c)density d) volume
37. LPG composition
38. Permanent hardness is due to salts of
- a) carbonates b) sulphates c)bi carbonates
39. Weeping, Flooding one question
40. Random packing regular packing: pres. vs surface area relation
41. Relation b/n head vs dia
42. 1 ton of refrigeration gives
- a) 1200KW b) 12000 KW c) none
43. Area meter is:
- a) Pitot tube b) Orifice meter c) Venturi meter d) Rotameter
44. Pitot tube measures
- a) Pressure head b) Velocity head c) Liquid head

APTITUDE

1. Fox belongs to family of?

a) Wolf b) tiger c) Cat

2. Accident : Carefulness : : Disease : ?

a) Doctor b) medicine c) Sanitation

3. In one party there are wife and husband and their two sons with their wives and each son have 4 children. How many are there in the party?

4. 4 ½ yard cloth costs 90 cents; what is the cost of 2 ½ yard cloth?

5. Ans. for one proverb: Don't do that is impossible.

6. 10 boxes of apple weigh 400 pounds. Each empty box weighs 4 pounds. What is the weight of total apples?

7. Husbands are ----- shorter than wives.

a) Never b) Usually c) Rarely d) Always e) Frequently f) Seldom

8. Fathers are ----- wiser than sons.

a) Never b) Usually c) Rarely d) Always e) Frequently f) Seldom

9. Mothers are ----- older than their daughters.

a) Never b) Usually c) Rarely d) Always e) Frequently f) Seldom

10. Which number is odd one the series.

0 1 3 6 10 15 21 28 34

11. CONSTITUTIONAL write the word by inter changing 1st with 2nd , 3rd with 4th and 5th with 6th etc.

12. Opposite of Love ----- Hate.