Advanced Multiple Choice Questions – Pharmaceutical Suspensions

1. Which characteristic best distinguishes a suspension from a colloidal dispersion?
A. Presence of a dispersed phase
B. Particle size greater than 1 μm
C. Use of surfactants
D. Presence of viscosity enhancers

2. According to Stokes' Law, sedimentation velocity increases when:
A. Viscosity increases
B. Particle radius decreases
C. Density difference between solid and liquid increases
D. Gravitational force decreases

3. Which dosage form is classified as a liquid dispersed in a liquid?
A. Suspension
B. Foam
C. Emulsion
D. Aerosol

4. The main purpose of a wetting agent in suspensions is to:
A. Increase caking
B. Reduce interfacial tension
C. Increase particle size
D. Prevent sedimentation completely

5. Which system is more likely to produce a hard cake?
A. Flocculated suspension
B. Partially deflocculated suspension
C. Deflocculated suspension
D. Emulsion

6. A suspension with rapid sedimentation but easy redispersion is most likely:
A. Deflocculated
B. Flocculated
C. Colloidal
D. Molecularly dispersed

7. Why are many antibiotics supplied as dry powders for reconstitution?
A. To increase taste masking
B. To decrease particle size
C. Because many are unstable in aqueous media
D. To avoid viscosity enhancers

8. Which of the following would decrease sedimentation velocity?
A. Larger particles
B. Lower viscosity
C. Higher viscosity
D. Greater density difference

9. In pharmaceutical suspensions, flocculation is preferred because it:
A. Prevents sedimentation entirely
B. Produces elegant crystal growth
C. Facilitates easy redispersion
D. Eliminates the need for shaking

10. Which is NOT considered a viscosity-enhancing agent?
A. Bentonite
B. Xanthan gum
C. Sodium bicarbonate
D. Methylcellulose

11. The sediment ratio (R) is defined as:
A. Viscosity divided by density
B. Height of sediment divided by initial suspension height
C. Density difference divided by particle radius
D. Particle size divided by viscosity

12. What is the primary disadvantage of highly viscous suspensions?
A. Faster sedimentation
B. Reduced stability
C. Poor pourability
D. Increased zeta potential

13. Which statement regarding deflocculated systems is correct?
A. They sediment rapidly
B. They are easy to redisperse
C. They remain cloudy longer
D. They form loose aggregates

14. Interparticle bridging is mainly associated with:
A. Electrolytes
B. Polymers
C. Surfactants
D. Preservatives

15. Which factor is LEAST related to caking prevention?
A. Flocculating agents
B. Zeta potential control
C. Increased viscosity alone
D. Partial deflocculation

16. A hydrophobic powder added directly to water without wetting agent will most likely:
A. Disperse uniformly
B. Form clumps
C. Dissolve completely
D. Form an emulsion

17. Which route commonly uses non-sweetened suspensions?
A. Oral
B. Buccal
C. Parenteral
D. Sublingual

18. The ideal suspension should exhibit all EXCEPT:
A. Redispersibility
B. Homogeneity
C. Permanent sedimentation
D. Pourability

19. What happens when zeta potential approaches zero?
A. Maximum repulsion occurs
B. Flocculation becomes more likely
C. Sedimentation stops
D. Solubility increases

20. Which particle shape was associated with more stable suspensions?
A. Needle-shaped
B. Irregular crystals
C. Barrel-shaped
D. Plate-shaped

21. The major sign of suspension instability according to USP/NF is:
A. Slight cloudiness
B. Color enhancement
C. Non-redispersible caking
D. Increased sweetness

22. Which statement about colloids is TRUE?
A. Particle size is always greater than 1 μm
B. Molecules are dispersed individually
C. They contain aggregates of molecules
D. They are identical to solutions

23. Which additive can neutralize particle surface charge?
A. Preservative
B. Surfactant
C. Flavoring agent
D. Sweetener

24. Increasing the density of the liquid medium will generally:
A. Increase sedimentation
B. Decrease sedimentation velocity
C. Increase particle aggregation
D. Eliminate caking

25. Which statement best describes a good suspension?
A. Contains large particles for rapid settling
B. Requires vigorous mixing before each dose
C. Has evenly distributed small particles
D. Forms irreversible sediments

26. Which preparation method involves changing solvent composition?
A. Levigation
B. Trituration
C. Solvent-change precipitation
D. Dry granulation

27. What is the function of labeling a suspension with 'Shake Well Before Use'?
A. Improve taste
B. Ensure dose uniformity
C. Increase viscosity
D. Prevent microbial growth

28. Which of the following may occur in a poorly formulated suspension?
A. Uniform dosing
B. Grittiness
C. Increased solubility
D. Molecular dispersion

29. A partially deflocculated system is preferred because it:
A. Prevents all settling
B. Balances sedimentation and redispersibility
C. Produces maximum clarity
D. Eliminates viscosity needs

30. What is the role of preservatives in oral suspensions?
A. Increase sedimentation
B. Control microbial contamination
C. Neutralize zeta potential
D. Enhance flocculation

31. Advanced Concept Question 31: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

32. Advanced Concept Question 32: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

33. Advanced Concept Question 33: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

34. Advanced Concept Question 34: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

35. Advanced Concept Question 35: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

36. Advanced Concept Question 36: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

37. Advanced Concept Question 37: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

38. Advanced Concept Question 38: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

39. Advanced Concept Question 39: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

40. Advanced Concept Question 40: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

41. Advanced Concept Question 41: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

42. Advanced Concept Question 42: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

43. Advanced Concept Question 43: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

44. Advanced Concept Question 44: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

45. Advanced Concept Question 45: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

46. Advanced Concept Question 46: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

47. Advanced Concept Question 47: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

48. Advanced Concept Question 48: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

49. Advanced Concept Question 49: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

50. Advanced Concept Question 50: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

51. Advanced Concept Question 51: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

52. Advanced Concept Question 52: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

53. Advanced Concept Question 53: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

54. Advanced Concept Question 54: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

55. Advanced Concept Question 55: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

56. Advanced Concept Question 56: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

57. Advanced Concept Question 57: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

58. Advanced Concept Question 58: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

59. Advanced Concept Question 59: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

60. Advanced Concept Question 60: Which statement regarding pharmaceutical suspensions is MOST accurate?
A. Sedimentation can always be eliminated completely
B. Flocculation may reduce caking tendency
C. High viscosity guarantees perfect stability
D. Wetting agents increase interfacial tension

Answer Key

Question	Answer
1	B
2	C
3	C
4	B
5	C
6	B
7	C
8	C
9	C
10	C
11	B
12	C
13	C
14	B
15	C
16	B
17	C
18	C
19	B
20	C
21	C
22	C
23	B
24	B
25	C
26	C
27	B
28	B
29	B
30	B
31	B
32	B
33	B
34	B

35	B
36	B
37	B
38	B
39	B
40	B
41	B
42	B
43	B
44	B
45	B
46	B
47	B
48	B
49	B
50	B
51	B
52	B
53	B
54	B
55	B
56	B
57	B
58	B
59	B
60	B