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2015

B. Pharm 4th Semester End-Term Examination

PHARMACEUTICS – III

Full Marks – 100 Pass Marks – 35 Time – Three hours

The figures in the margin indicate full marks for the questions.

Attempt *all* of the following questions : $2 \times 6 = 12$

1. Shape factor
2. Thixotropy
3. Gold number
4. Steady state diffusion and sink condition.
5. Noyes Whitney equation for dissolution.
6. Half life and shelf life of a chemical reaction.

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Attempt any *six* of the following questions :

3×6=18

7. Angle of repose and its importance.
8. Single point and multiple point viscometers.
9. Importance of accelerated stability studies.
10. Give classification of complexes.
11. Write pharmaceutical applications of colloids.
12. What do you mean by Bingham bodies, plastic viscosity and plug flow ?
13. What is kinematic viscosity ?

Answer any *eight* of the following questions :

5×8=40

14. Discuss about various particle size distribution analysis curves.
15. Explain protective colloidal actions.
16. Derive equation for rate constant of a first order rate of reaction.
17. Discuss about different methods for determination of half life.

18. Write about controlled flocculation in structured vehicle.

19. Explain Fick's first law of diffusion.

20. Discuss various methods for preparation of pharmaceutical complexes.

21. What is Newton's law of Rheology and Newtonian systems ?

22. Discuss any one method for determination of specific surface area of powder material.

23. Write about inclusion complexes.

Answer any *three* of the following questions :

10×3=30

24. Explain different non-Newtonian systems of Rheology with reference to their characteristic rheograms.

25. What are different methods for particle size distribution analysis ? Explain Coulter counter method in detail.

26. What are the different methods for analysis of complexes ? Discuss any one method in detail.

27. How expiry date of pharmaceutical product is assigned ? Explain.

28. (a) Discuss kinetic properties of colloids.

(b) Explain various theories of emulsification.