Rajiv Gandhi University of Health Sciences, Karnataka

II Year B. Pharm Degree Examination – **DEC-2018**

Time: Three Hours **Max. Marks: 70 Marks**

PHYSICAL PHARMACEUTICS (RS - 4)

Q.P. CODE: 2630

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Define stability studies. Explain in detail how the shelf life of pharmaceutical product is determined.
2. Explain different purification methods and protection of colloids.
3. With the help of neat diagram explain the working principle of cup and bob, cone and plate viscometer with its advantages and disadvantages.

SHORT ESSAYS (Answer any Six) **6 x 5 = 30 Marks**

4. State and explain Nernst distribution law. Give any two applications in pharmacy.
5. Explain the phenomena of wetting and detergency.
6. State and explain Fick's first and second law of diffusion.
7. Explain shear thickening system with examples
8. What are derived properties of powders? Explain any two
9. Enumerate different methods of analysis of complex. Explain distribution method of analysis.
10. Explain the graphical and half life method for determination of order of reaction.
11. Explain kinetic properties of colloids.

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Define pseudo first order reaction with examples
13. What is electro osmosis and electrophoresis?
14. Give the limitations of Distribution law
15. Define Nernst Potential
16. Give Noyes Whitney equation and its terms.
17. Define micro emulsions and multiple emulsions
18. Define volume-surface mean diameter. Give the equation for its calculation.
19. State Edmundson's equation
20. What are channel type complex? Give example
21. Give any four applications of X-Ray crystallography analytical technique.

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