Rajiv Gandhi University of Health Sciences, Karnataka
Third Semester B. Pharm Degree Examination – JAN-2019

Time: Three Hours   **Max. Marks: 75 Marks**

Physical Pharmaceutics - I
Q.P. CODE: 5010
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 azeotropic mixtures. With the help of neat diagram explain in detail fractional distillation process.
2. Define optical rotation. Discuss in detail working of polarimeter.
3. Define interfacial tension. Explain in detail the working of stalagmometer. Write its applications.

SHORT ESSAYS (Answer any Seven)   **7 x 5 = 35 Marks**

4. Discuss in detail electrometric determination of pH.
5. Explain real solution with examples.
6. Discuss in detail surface free energy.
7. Define complex. Classify with example.
8. Explain in detail diffusion principles in biological systems.
9. Write the applications of inclusion complexes with examples.
10. Define dielectric constant. Write a note on its application in Pharmacy.
11. What are paratonic solutions? What are the effects of injecting paratonic solutions?
12. Explain Griffins scale in detail.

SHORT ANSWERS (Answer All)   **10 x 2 = 20 Marks**

13. Write any two limitations of Freundlich adsorption isotherm.
14. What are channel type complex? Give example.
15. Define the term isotonicity with an example.
16. What do you mean by glassy states?
17. Explain buffer equation.
18. Write the solubility expressions for the solubility of solids in liquids.
19. What are sandwich complexes?
20. What are aerosols?
21. Write any two applications of buffers in pharmacy.
22. Define term ligand with examples.

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