Name of the Examination: B. Pharm., 3rd Year, 2nd Semester, 2019.

Subject: Pharmaceutics –VI   **Time**: 3 hours   **Full Marks**: 100

Answer any *five* questions taking | atleast *two* from each group

GROUP – A

Q.1. Write a brief note on Optimal Health and Role of Nutraceuticals.   (20)

Q.2. Write a detail note on, how the bioavailability of a particular drug may be optimized to the fullest extent from ophthalmic formulation(s).   (20)

Q.3. Write the importance of the following:

(i) Site of administration in case of I.M. injection.
(ii) Hydration of the skin and chemical nature of drug as well as the base in case of skin preparation.
(iii) Physicochemical nature of the drug in case of sublingual administration
(iv) Nature of delivery of aerosolized formulations.   (5x4)

Bachelor of Pharmacy Examination 2019

(3rd year 2nd Semester)

Pharmaceutics VI

Time 3Hours **Full Marks: 100**

Answer all parts of a question in one place

Answer any **Five** questions taking at least **Two** from each group

Group- B

4. a) Show that absorption of drugs by passive diffusion process follows 1st order kinetics.

   b) Derive an equation to show that absorption of weakly acidic drugs varies with pH of gastro-intestinal tract.

   c) " Generally salt form of weak electrolyte- drugs increases the absorption than the parent drugs"

   - Discuss with illustration.

   d) How do the polymorphic forms of a drug influence the bioavailability?   5+4+6+5 = 20

5. a) Write a brief note on active transport process of drug absorption.

   b) How do the physiological conditions affect absorption of drugs from gastro-intestinal tract?

   c) Compare the absorption of drugs from suspension and emulsion dosage forms. 8+7+5 = 20

6. a) Schematically represent the fate of a drug in the body following administration.

   b) Why most of the drugs are absorbed through small intestine?

   c) What does the pH-partition hypothesis state about absorption of drugs?

   d) "Although two drugs possess almost same log P, one may be absorbed more than the other"- Give reason with example.

   e) Which type of drugs are absorbed by passive diffusion process? Give one example.

   f) When rapid gastric emptying of a dosage form is desirable?

   g) Classify drugs based on BCS.   3X6+2 = 20