BP-403T

Physical Pharmaceutics-II

(724403)

[Total Pages : 4]

Time : 3 Hours   Max. Marks : 75

Note : (1)   Do not write anything on question paper except Seat No.

(2)   Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.

(3)   Students should note, no supplement will be provided.

(4)   *All questions are compulsory.*

(5)   Figures to the right indicate full marks.

(A)   Choose the correct answer of the following :   10

    (i)   Flocculated suspension exhibits the flow of type :

       (a)   Dilatant   (b)   Newtonian

       (c)   Plastic   (d)   Pseudoplastic

    (ii)   Stress and rate of share have relationship as per Newton's flows :

       (a)   Linear   (b)   Non-linear

       (c)   Hyperbolic   (d)   Parabolic

P.T.O.

(ix) Anderson pipette works on the principle of :

    (a)   Henry's law

    (b)   Stokes' law

    (c)   Hardy-Schulze's law

    (d)   Newton's law

(x) Stability of colloidal system is indicated by :

    (a)   Schulman theory

    (b)   Cockbain theory

    (c)   DLVO theory

    (d)   Hofmeister theory

                                               10

(B) Answer the following questions (2 marks each) :

    (i)   Draw well labelled diagram of Anderson pipette.

    (ii)   Give difference between lyophilic and lyophobic sol.

    (iii)   What is porosity ? Enlist derived properties of powder.

    (iv)   Define rate of reaction and zero order reaction.

    (v)   Draw well labelled diagram of coulter counter.

                                                 20

2.   Solve any *two* :

    (i)   What is electrical double layer ? Explain in detail OR DLVO theory.

    (ii)   Write in short about angle of repose and explain for determining surface area method.

    (iii)   Write in detail on formulation of suspension with special emphasis on controlled flocculation and flocculation in structured vehicle.

3. Solve any *seven* :

(i) Write in brief about optical properties of colloids.

(ii) Write a short note on plastic and pseudoplastic flow.

(iii) Discuss in detail about sieving method to determine particle size.

(iv) Write a note on theories of emulsification.

(v) Write a note on thixotropy and anti-thixotropy.

(vi) Write a note on accelerated stability testing.

(vii) What is first order reaction ? Explain any *one* method to determine it.

(viii) Explain in brief about working of cup and bob viscometer.

(ix) Write a note on creaming and phase inversion for physical stability of emulsion.