Seat Number

* 3 8 1 6 *

W-19

BP 403 T
Physical Pharmaceutics-II
(724403)

P. Pages : 2

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

Instructions to Candidates :

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. Figures in right indicate full marks.

1. Answer all the questions. (2 marks each). **2x10 =20**

a) Enlist optical properties of colloids.

b) Give examples of plastic systems.

c) Mention Heckel equation.

d) What is the effect of electrolytes on colloidal stability.

e) Enlist theories of emulsification.

f) Enlist methods for particle size determination.

g) Mention formulae for determination of porosity and compressibility index.

h) Comment on stability of emulsions.

i) Enlist factors affecting chemical degradation of pharmaceutical product.

j) Mention methods for determination of order of reaction.

2. Attempt **any two** (10 marks each). **2x10 =20**

a) What are colloids? Explain in detail Brownian motion with neat labelled diagram.

b) What is micromeritics? Explain sieving method in detail.

c) Write a detailed note on 'Accelerated stability testing'.

3. Attempt **any seven.** (5 marks each) **5x7 =35**

a) Explain comparative classification of colloids.

b) Explain Newtonian systems with its rheogram & examples.

c) Explain Falling-sphere viscometer with neat labelled diagram.

d) Comment on "Derived properties of powders".

e) Write a detailed note on "Theories of emulsification".

f) Explain in detail the concept of angle of repose. What is the correlation between angle of repose and flow of powders?

g) Explain half-life and shelf-life determination for zero order reactions.

h) Note on formulation of flocculated and deflocculated suspensions.

i) Write a note on "Electric double layer" with well labelled diagram.

****