**Diploma in Pharmacy (Part-I) Examination**

May / June – 2003

**Pharmaceutics - I**

Time : 3 Hours] [Total Marks : 80

Instructions : (1) Attempt any three questions from each section.
(2) Tie both sections separately.
(3) All questions carry equal marks.

**SECTION - I**

1 (a) Define Size Reduction. What are the objects of size reduction?
   (b) Explain principle, construction, working, advantages, disadvantages and applications of Ball-Mill.

2 (a) Write note on Cyclone Separator.
   (b) Find out the amount of Sodium Chloride required to render 100 ml of 3% w/v solution of sulphacetamide sodium solution isotonic with tears:
   
   \[
   \text{FPD of 1% sulphacetamide-Na} = -0.132^\circ C
   \]
   \[
   \text{FPD of 1% NaCl} = -0.58^\circ C
   \]
   \[
   \text{FPD of tears} = -0.52^\circ C
   \]

3 (a) Explain :
   - Clarification
   - Filtration.
   Explain factors affecting rate of filtration.
   (b) Explain construction, working, advantages, disadvantages and applications of plate and frame filter press.

4 (a) Explain Mixing. Explain different types of Mixtures with example.
   (b) Write note on Planetary Mixer.

MT-605] 1 [Contd...
5 (a) Define:
- Extraction
- Menstruum
- Marc.

Explain different steps for Percolation Process.
(b) How many parts of 80%, 65%, 32% and 20% Alcohol to be mixed together so as to give 40% alcohol.

SECTION - II

6 (a) Define Tablets. Classify the Tablets.
(b) Explain formulation ingredients with examples.

7 (a) What are the different steps involved in capsules dosage form formulation?
(b) State different Distillation Processes.

8 (a) Write note on Rectification.
(b) Classify Immunological product.

9 (a) Classify different sterilization methods. Write note on Autoclave.
(b) Q. C. tests of Tablets.

10 Write notes on three:
(a) Latest IP
(b) Fluid bed drier
(c) Glass as a container
(d) Modern drug delivery systems.