

B PHARM
(SEM IV) THEORY EXAMINATION 2022-23
PHYSICAL PHARMACEUTICS II

Time: 3 Hours

Total Marks: 75

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. **10 x 2 = 20**
- (a) Define kinematic viscosity.
 - (b) Define porosity.
 - (c) What is peptization?
 - (d) Draw rheogram of plastic fluid.
 - (e) What are Newtonian fluids?
 - (f) Define Feret and Martin diameter.
 - (g) What is rheopexy?
 - (h) Name two rotational viscometer.
 - (i) Define Hausner's Ratio.
 - (j) Give example of Non-Newtonian fluids.

SECTION B

2. Attempt any two parts of the following: **2 x 10 = 20**
- (a) Differentiate Newtonian and Non-Newtonian liquids.
 - (b) What are different methods of determining particle size? Discuss Andreason Pipette method.
 - (c) Discuss accelerated stability studies.

SECTION C

3. Attempt any five parts of the following: **7 x 5 = 35**
- (a) What is plug flow? Discuss the viscometer which have the disadvantage of plug flow and how will you minimize it.
 - (b) Discuss dilatent flow and negative thixotropy.
 - (c) What are different flow properties of powder? Discuss.
 - (d) Explain various properties of colloids.
 - (e) What are colloids write down application of colloids in pharmaceutical system? Discuss briefly about it.
 - (f) Write down the ideal characteristics of suspension. Discuss sedimentation parameters.
 - (g) Discluss theories of emulsion.