PAPER ID-311982

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM IV) THEORY EXAMINATION 2024-25
PHYSICAL PHARMACEUTICS II – THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	State the electrical properties of the colloidal dispersions.
b.	Define and mention the units of kinematic viscosity.
c.	State the significance of plastic and elastic deformation.
d.	Define Schulze rule
e.	Name the parameters involved in the evaluation of flow properties of a pharmaceutical blend.
f.	What do you mean by 'pseudo-zero order kinetics'?
g.	Differentiate flocculated and deflocculated suspensions.
h.	What do you mean by 'mean particle size' and 'specific surface of particles'?
i.	Define energy of activation
j.	Define peptization with example

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Enumerate the methods for determination of particle size. Explain working principle of coulter counter with labelled diagram
b.	What is accelerated stability testing? Narrate its role in determining the expiry period of a dosage formulation
c.	Explain the roles of the various physical and chemical factors on the chemical degradation of pharmaceutical products.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Explain the coulter counter method for determining the particle volume
b.	State and explain the comparative account of the general properties of colloidal dispersions.
c.	State Heckel equation and explain its pharmaceutical significance.
d.	Explain the steps for determination of order of a chemical reaction.
e.	Classify emulsion. Explain the different theories of emulsion.
f.	Define true density. Discuss true density determination using helium displacement method
g.	Give the principle, working and applications of cup and bob viscometer with clean and neat diagram.