PAPER ID-421533

Subject Code: BP403T

Roll No:

BPHARM
(SEM IV) THEORY EXAMINATION 2021-22
PHYSICAL PHARMACEUTICS II – THEORY

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

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

a.	Classify dispersed systems with examples.
b.	Define peptization with example.
c.	State the Law of Flow.
d.	State the Heckel equation and explain each term involved.
e.	State the nature of flocculated and deflocculated suspensions.
f.	Mention the advantages of microemulsions over emulsions.
g.	Define 'cut diameter of a sieve' with suitable example.
h.	Name the parameters involved in the evaluation of flow properties of a pharmaceutical blend.
i.	What do you mean by 'pseudo-zero order kinetics'?
j.	Mention the role of dielectric constant on the chemical degradation of pharmaceutical products.

SECTION B

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

a.	Explain the effects of electrolytes, coacervation, and peptization on pharmaceutical colloidal preparations.
b.	Describe in brief the various methods used for the determination of particle size.
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.	Classify colloids and compare the general properties of colloidal dispersions.
b.	Describe the effects of thixotropy in pharmaceutical formulations, with suitable examples.
c.	Describe the theories of emulsification.
d.	State and explain the evaluation parameters used for characterization of the derived properties of powders.
e.	Explain the steps for determination of order of a chemical reaction.
f.	Mention the working principles and applications of capillary, falling sphere, and rotational viscometers used for the determination of viscosity.
g.	Write a brief note on photolytic degradation of pharmaceutical preparations and its prevention.

https://www.aktuonline.com