Printed pages: 01 Sub Code: BOP-242

Paper Id: 150402 Roll No: | | | | | | | | | | |

B. PHARM
(SEM 4) THEORY EXAMINATION 2017-18
PHYSICAL PHARMACY

Time: 3 Hours *Total Marks: 100*

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. **2 x10 = 20**

a. Define pseudo and first order reactions.
b. Define buffer capacity.
c. Draw the flow curves for Newtonian and non-Newtonian types of flow.
d. What do you mean by term specific surface area?
e. Define Zeta and Nerst potensial.
f. Define the term interfacial tension.
g. Define the term Specific & Reduced viscosity.
h. What are structured vehicles?
i. What is Brownian movement?
j. Define emulsification.

SECTION B

2. Attempt any *three* of the following: **10 x 3 = 30**

a. Discuss the ICH guideline for stability testing of drugs.
b. What is importance of micromeritics in pharmacy?
c. Give procedure for granule density determination using Hg displacement method.
d. Discuss creaming and its prevention in emulsion.
e. Discuss theory of emulsification.

SECTION C

3. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Discuss determination of expiry date of drug.
(b) Discuss methods of adjusting tonicity.

4. Attempt any *one* part of the following: **10 x 1 = 10**

(a) What are importance colloids in pharmacy?
(b) What are the problems posed by poorly flowing powder? How can flow properties be improved?

5. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Describe determination of Surface sof a powder with a neat diagram
(b) Compare the characteristics of different types of suspensions.

6. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Discuss Falling sphere viscometer with a labeled diagram.
(b) What is thixotrophy, how is it measured? And what is the role of thixotrophy in formulation?

7. Attempt any *one* part of the following: **10 x 1 = 10**

(a) Describe the principle & working in brief of Cone and Plate.
(b) Discuss the theory of sedimentation.