Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 10

B. Pharma (Sem.–4)

# PHARMACEUTICS-V (Physical Pharmacy)

Subject Code : BPHM-405

M.Code : 46235

Date of Examination : 24-12-2022

Time : 3 Hrs. Max. Marks : 80

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt any THREE questions.**

## SECTION-A

**1. Answer briefly :**

a) What is eutectic mixture? Give two examples.

b) What is meant by glassy state?

c) What is meant by latent heat?

d) What is specific surface area?

e) What is meant by first order reaction?

f) Define specific and intrinsic viscosities.

g) What is rheopexy? Give two examples.

h) What is flocculation and what are its advantages?

i) What is syneresis?

j) What is the difference between amorphous and crystalline solid?

k) What are creaming in emulsions? Mention its causes.

l) What is co-solvancy?

m) Mention the angle of repose for poor flow of solids.

n) What is contact angle?

o) What is meant by porosity?

## SECTION-B

2. Write a note on liquid crystals and their applications.

3. What is HLB? Explain the importance of HLB value in formulating a stable emulsion system.

4. What is the difference between surface tension and interfacial tension? How is spreading Coefficient determined?

5. Discuss the use of pH change method for analyzing complexation with the help of a suitable example.

6. Write a note on emulsifying agents giving suitable examples.

## SECTION-C

7. Enumerate the different methods for determining the particle shape of solids. Describe any one in detail with its limitations.

8. Discuss Non-Newtonian systems and their applications.

9. Discuss the methods used for determining shelf life of a product using temperature as a stress condition.

10. Discuss flocculation phenomena and its advantages while formulating a stable suspension. Mention the parameters to be evaluated for assessing stability of suspensions.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student**.