Sub Code: PHARM355

Paper Id: 150525 Roll No:

B.PHARM

(SEM V) THEORY EXAMINATION 2019-20

PHARMACEUTICS-VI (PHYSICAL PHARMACY)

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections.

SECTION A

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

a. What do you mean glassy state?
b. Differentiate between polymorphism and amorphism.
c. Define porosity.
d. Enlist various densities of the powder.
e. Define spreading coefficient.
f. Give two electrical properties of interfaces.
g. What do you mean by protective colloids?
h. Define kinematic viscosity.
i. What are physical route of drug degradation?
j. Define bulkiness.

SECTION B

2. Attempt any *three* of the following: 10x3=30

a. Discuss in detail theory of sedimentation.
b. How will you determine half life of a drug? Write a short note on liquid crystals.
c. Write a short note on optical microscopy. Give a suitable method for determining particle volume.
d. Classify and discuss various surface active agents.
e. Define colloids. Give various properties of colloids and application in pharmacy.

SECTION C

3. Attempt any *one* part of the following: 10x1=10

a. Discuss various flow properties of the powder.
b. Give suitable method for determining surface area of the powder. What do you mean by particle volume?

4. Attempt any *one* part of the following: 10x1=10

a. Discuss various methods to determine surface and interfacial tension.
b. Stability of Suspensions and Emulsions in relation to HLB of surfactants.

5. Attempt any *one* part of the following: 10x1=10

a. Define stable emulsion. What are various instabilities that occur in emulsion?
b. Write a short note on flocculation in structured vehicle.

6. Attempt any *one* part of the following: 10x1=10

a. What are Newtonian and Non-Newtonian systems? Explain with specific examples.
b. Classify complexes and discuss the importance/applications of complexation in pharmacy.

7. Attempt any *one* part of the following: 10x1=10

a. Discuss ICH guidelines for stability.
b. How will you measure tonicity? Write a short note on buffers used in pharmaceutical systems.

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