

16427(D)

- 0 DEC 2016

B. Pharmacy (Ayur.) 3rd Semester Examination

Pharmaceutics-Physical Pharmacy (CBS)

BPA-303

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any one question from Sections A, B, C and D. All questions of Section E are compulsory.

SECTION - A

1. (a) What is angle of repose? Give its significance in Pharmacy. (5)
(b) Describe the displacement method for determination of true density. (5)
2. Discuss the different pathways with suitable examples for chemical decomposition of drugs. (10)

SECTION - B

3. Enlist the methods used to determine surface tension of liquids and solids. Describe the capillary rise method in detail. (10)
4. What is critical micelle concentration? Explain the changes on properties of surfactant solution at CMC. (10)

SECTION - C

5. What is thixotropy and write a method for determination of thixotropy? Explain the various applications of thixotropy. (10)

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6. Classify viscometers based on single-point and multiple-point determinations. Describe the principle and working of cone and plate viscometer with the help of well labeled diagram. (10)

SECTION - D

7. Define the terms Nerst and Zeta potential. Describe the electrokinetic properties of suspension. (10)
8. (a) Enlist the different symptoms of physical instability of Pharmaceutical emulsions. Explain the reasons and remedies for coalescence and Phase Inversion. (5)
(b) Write a brief note on emulsion preservation. (5)

SECTION - E

9. Answer the following questions briefly:
 - (i) Define spreading coefficient. Write the mathematical equation for the same.
 - (ii) Define expiry date and in brief write a method for its determination.
 - (iii) Enlist the manual and digital hardness testers used for measurement of tablet hardness.
 - (iv) Define and write the significance of contact angle.
 - (v) Draw HLB scale.
 - (vi) Explain the terms bulges and spurs.
 - (vii) Define suspending agents. Enlist the name of any five suspending agents.
 - (viii) Differentiate between floccules and coagules
 - (ix) Define bulk, tap, granular and true density
 - (x) What do you understand from controlled flocculation? How it is achieved? (2×10=20)