16433(D)= 1 DEC 2016

B. Pharmacy (Ayurveda) 3rd Semester Examination Pharmaceutics (Physical Pharmacy) (NS) BPA-323

Time: 3 Hours

Max. Marks: 70

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

Note: Question no. 1 is compulsory. Attempt any five questions out of remaining six.

- 1. (i) Define and discuss liquid crystals.
 - (ii) Give applications of surface tension.
 - (iii) Define viscosity and homogeneity of Ayurvedic preparations.
 - (iv) Discuss non-Newtonian systems.
 - (v) Discuss the term negative thixotropy.
 - (vi) How colloidal & molecular dispersions are separated?
 - (vii) Give symptoms of physical instability of emulsions.
 - (viii) Define and discuss the term structured vehicles.
 - (ix) Define & discuss hardness & disintegration of tablets.
 - (x) Define & discuss phase-inversion phenomenon.

 $(2\times10=20)$

2. Discuss critical micelle concentration. Explain the phenomenon of solubilization. (10)

Explain theories of emulsification. Add a note on stability of disperse systems. (10)
 Define viscosity. How is it determined? (10)
 Define thermodynamics. Discuss briefly various laws of thermodynamics. (10)
 Discuss the phenomenon of adsorption. Explain various types of adsorption isotherms. (10)
 (i) Write a note on thermochemistry.

Discuss catalysis in brief.

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 $(5 \times 2 = 10)$