

[Total No. of Questions - 7] [Total No. of Printed Pages - 2]  
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**B. Pharmacy (Ayurveda) 3rd Semester Examination**

**Pharmaceutics (Physical Pharmacy) (N.S.)**

**BPA-323**

**Time : 3 Hours**

**Max. Marks : 70**

*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 :** Question 1 is compulsory. Attempt any five questions out of remaining six.

1. (i) Define and explain polymorphism.  
(ii) Write equation for ideal gas law.  
(iii) Discuss consistency & homogeneity of Ayurvedic products.  
(iv) Define positive adsorption citing suitable examples.  
(v) Give applications of thixotropy.  
(vi) Explain Newtonian flow.  
(vii) What are protective colloids?  
(viii) Describe structured vehicles.  
(ix) Explain phase inversion.  
(x) How refractive index is determined? **(2×10=20)**
2. Discuss solid state of matter in detail. **(10)**

**1538/50**

**[P.T.O.]**

3. Explain various types of adsorption isotherms. **(10)**
4. Define viscosity & rheology. How viscosity is determined? **(10)**
5. Discuss methods of preparation of lyophobic colloids. **(10)**
6. Describe symptoms of physical instability in emulsions. How are they stabilized against such instability? **(10)**
7. What is thermodynamics? Discuss first law of thermodynamics. **(10)**