Registration no: | | | | | | | | | | |

Total Number of Pages: 02 http://www.bputonline.com **B.PHARM**
PH.4.1

4th Semester Back Examination 2016-17
PHARMACEUTICS - III (PHYSICAL PHARMACEUTICS-II)
BRANCH: PHARMACY
Time: 3 Hours
Max Marks: 70
Q.CODE: Z300

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions:** **(2 x 10)**

a) Define projected diameter and volume diameter.
b) What do you mean by undersize and oversize of particles?
c) Define Angle of Repose with significance.
d) What is Kinematic and Dynamic viscosity?
e) Differentiate between Newtonian flow and Non-Newtonian flow with examples.
f) What are colloids? Arrange particle size In ascending order of coarse suspension, true solution, and colloids.
g) What is gold number? Write their significance.
h) Define zero order reaction, write the unit of rate constant.
i) What is EDTA? Write Importance of EDTA.
j) Write the full form of BET. Define Shelf life of drug?

Q2 **a)** Write application of Micromeritics in pharmacy. **(5)**

b) Write Edmondson's equation. How the equation is related to particle size. **(5)**

Q3 **a)** Write the calibration procedure for Microscopic method. **(5)**

b) Write principle of coulter counter method. **(5)**

Q4 What are the different types of Non-Newtonians flow? Give their specific examples. **(10)**

Q5 **a)** Classify different types of colloids with examples. **(5)**

b) Write short notes about protective colloids. **(5)**

Q6 **a)** Write Arrhenius equations, how it is related to stability study. **(5)**

b) Write short notes on Cone and Plate method. **(5)**

Q7 **a)** Define order and molecularity of reaction with suitable examples. **(5)**

b) Derive Langmuir equation for adsorption isotherm. **(5)**

Q8 **Answer any two:** **(5 x 2)**

a) Bulk density, Tap density and porosity.
b) Classify differ types of complexes
c) Electrical properties of colloids
d) Sol-Gel-Sol theory.