

**Name of the Examination:** B. PHARM., 3<sup>rd</sup> Year, 2<sup>nd</sup> Semester, Examination, 2017.

**Subject:** Pharmaceutics –VI

**Time:** 3 hours

**Full Marks:** 100

Answer any *five* questions taking at least one from each group.

**Use separate answer scripts for each group**

GROUP – A

1. Why sometimes intramuscular route is preferred over oral and I.V. routes?  
When this kind of preference must be avoided and why? When switching  
from I.M. route to oral route may be dangerous and why? (20)
2. A) Write a brief note on :  
“Designing of aerosol formulation to improve bioavailability.” (10+10)  
B) What are the parameters to be kept in mind to improve bioavailability from  
Buccal and Sublingual formulations?
3. Give a comprehensive overview on “Neutraceuticals”. ( 20)

**B. PHARMACEUTICAL TECHNOLOGY THIRD YEAR SECOND SEMESTER- 2017**

Subject: PHARMACEUTICS-VI

Time: Three Hours

Full Marks: 100

**GROUP-B**Use separate Answer scripts for each Group.

Q. No		Marks
Q4.	(a) What do you mean by Biopharmaceutics?	2
	(b) "Extent of response of a drug from I. V. injection may depend on site specific administration"- cite two examples with explanation.	2
	(c) Although gentamycin sulfate is not absorbed enterally, it is well absorbed from I.M. injection- give reason.	2
	(d) State the factors that affect the rate of absorption of drugs from I.M. site.	5
	(e) Discuss the factors which influence percutaneous absorption of drugs.	9
Q5.	(a) What is the driving force in absorption of drugs by passive diffusion?	1
	(b) Show that the drugs are absorbed by passive diffusion process following first order kinetics.	4
	(c) What are characteristics of active transport process?	4
	(d) Distinguish between: i) Pore transport and paracellular transport; ii) facilitated diffusion and ion pair transport.	6
	(e) "Most drugs are absorbed better from small intestine than from stomach"- Justify with anatomic and physiologic reasons.	5
Q6.	(a) "Reduction in particle size may or may not increase the absorption of poorly water soluble drugs"- Explain with examples.	4
	(b) Describe two equations to show that weakly acidic and weakly basic drugs are preferentially absorbed from small intestine and stomach respectively.	6
	(c) "Sodium salts of weakly acidic drugs are better absorbed than the parent drugs from stomach"- Explain.	3
	(d) Discuss the limitations of pH-partition hypothesis.	7