

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B.Pharm. Winter 2019-20 Examination**

**Semester: 3****Subject Code: 08101205****Subject Name: Pathophysiology & Pharmacology****Date: 27/11/2019****Time: 2:00 pm to 5:00 pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

**Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)**

1. Explain the working mechanism of G-protein coupled receptor & nuclear receptor.
2. Discuss the causes and mechanisms of cell injury.
3. Explain in detail factors affecting absorption.

**Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)**

1. Explain Phase-I biotransformation reactions for drug metabolism.
2. Write a short note on acute and chronic inflammation.
3. Explain the working mechanism of open channels and gated channels.
4. Explain area under curve for single dose.
5. Enlist various types of hypersensitivity reaction and explain Type-I hypersensitivity reaction.
6. Write a note on biological effect of radiation.
7. Explain various mechanism of drug transportation.
8. Classify routes of drug administration and write a note on IV route.
9. Write a short note on apoptosis.

**Q.3 Answer in short. (2 marks each) (20)**

1. Explain immunological tolerance with suitable example.
2. Enlist various sources of drugs.
3. Define agonist and antagonist with example.
4. Explain in short Hyperplasia & Metaplasia.
5. Write a note on bioavailability and bioequivalence.
6. What is clinical pharmacy?
7. Define Amyloidosis
8. What is apparent volume of distribution?
9. Explain synergism and antagonism with example.
10. Define loading dose and maintenance dose.