

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**M.Pharm. Winter 2017-18 Examination**

**Semester: 1**  
**Subject Code: MPL102T**  
**Subject Name: Advanced Pharmacology-I**

**Date: 10/01/2018**  
**Time: 10:00 am to 1:00 pm**  
**Total Marks: 75**

---

**Instructions:**

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

**Q.1 Essay Type Questions. (any 2 out of 3) (15 Mark Each) (30)**

1. Describe the structure of GABA-A receptor complex with different binding sites. Explain therapeutic indications of drugs affecting this receptor complex.
2. Explain key pathways of platelet activation and aggregation. Discuss platelet receptors and antiplatelet agents used in the management of thromboembolic disorders.
3. Explain role of microsomal and non-microsomal enzymes in drug biotransformation and write on induction and inhibition of drug metabolizing enzymes. Describe any one clinically important metabolism drug interaction.

**Q.2 Short Essay Type Questions. (any 5 out of 6) (5 Mark Each) (25)**

1. What are low molecular weight heparins? Write advantages of these agents over heparin.
2. Classify class-I anti-arrhythmic agents. Explain advantages of lignocaine in the management of ventricular arrhythmias.
3. Enumerate typical and atypical antipsychotics. Explain therapeutic advantages of atypical antipsychotics.
4. Describe characteristics of high ceiling diuretics. Explain mechanism of action and therapeutic indications of these agents.
5. Explain nonselective and cardio selective  $\beta$ -blockers. Write on therapeutic indication and limitations of  $\beta$ -blockers.
6. Explain binding of drugs to blood components and extravascular tissue. Write on significance of protein and tissue binding of drugs.

**Q.3 Short Answers. (2 Mark Each) (20)**

1. Physiological importance of endogenous opioid peptides.
2. Benefit and risk of selective COX-II inhibitors.
3. Pathophysiological role of prostaglandins.
4. Write therapeutic indications for 5HT receptor agonist with example.
5. Differences between opioid and non opioid analgesics.
6. Enlist non biologic and biologic disease modifying anti-rheumatoid drugs (DMARDs).
7. Importance of enterohepatic cycling.
8. Structural differences between brain capillary and peripheral capillary.
9. Explain rationale of combining angiotensin receptor antagonist with neprilysin inhibitor in the management of CCF.
10. Recommendations made in current new high blood pressure guidelines.