

GUJARAT TECHNOLOGICAL UNIVERSITY
M.PHARM - SEMESTER-1 EXAMINATION – SUMMER-2019

Subject Code: MPL102T**Date: 30/05/2019****Subject Name: Advanced Pharmacology-I****Time: 02:30 PM TO 05:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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| Q.1 | (a) | Classify the following receptors and describe their signal transduction mechanism citing suitable examples of agonist and antagonist.
1) Serotonin 2) Histamine | 06 |
| | (b) | Explain the concept of linear and non-linear compartment model. | 05 |
| | (c) | Write therapeutic uses of antimuscarinic agents. | 05 |
| Q.2 | (a) | Explain signal transduction pathways of adrenergic receptor in heart muscle. | 06 |
| | (b) | Explain the role of cytokines in various immunological and inflammatory disorders. | 05 |
| | (c) | Write a short note on Hematinics and explain the uses of erythropoietin. | 05 |
| Q.3 | (a) | Explain drug-receptor theory based on applying the Law of Mass Action to the drug-receptor interaction. | 06 |
| | (b) | Write in detail about Non adrenergic non cholinergic transmission (NANC). | 05 |
| | (c) | Explain the term: Ectopic focus. Write mechanism of action and adverse effect of Quinidine. | 05 |
| Q.4 | (a) | Explain the major functional pathways of G-protein coupled receptor transduction | 06 |
| | (b) | Dwell upon dopaminergic pathways and their functions. | 05 |
| | (c) | Write a note on drugs used to treat the anxiety. | 05 |
| Q.5 | (a) | Describe the following terminologies using dose response curve.
1) Drug selectivity 2) Risk benefit ratio 3) Drug potency 4) Drug efficacy | 06 |
| | (b) | Justify the use of streptokinase in thrombosis. | 05 |
| | (c) | Classify narcotic analgesic. Write briefly on pentazocine. | 05 |
| Q. 6 | (a) | Explain the physiological and pathological role of Histamine. | 06 |
| | (b) | Describe major mechanisms of anticonvulsant drugs. Enlist the choice of a suitable anti-seizure drug for various types of seizures. | 05 |
| | (c) | Write a short note on: Significance of Protein binding. | 05 |
| Q.7 | (a) | Explain in detail various pharmacokinetic parameters affecting depth of general anesthesia and induction of anesthetic effect. | 06 |
| | (b) | Classify anti-hyperlipidemic agents. Write a brief note of Statins. | 05 |
| | (c) | Write a short on Selective Serotonin Reuptake Inhibitors (SSRIs). | 05 |
