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Exam Date & Time: 09-Mar-2022 (10:00 AM - 01:00 PM)



# MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

# Advanced Pharmacology I [PHA-MPL102T - S2]

Marks: 75 Duration: 180 mins.

### **SECTION - A**

## Answer all the questions.

Answer the following (10 marks x = 50 marks)

- 1) With a neat diagram discuss the signal transduction mechanism of nuclear receptors (10)
- 2) Giving examples, write the mechanism of action of drugs inhibiting the neurotransmission and signal transduction of (i) serotonin, and (ii) prostaglandin. (10)
- Explain the physiology of chloride channel. Describe the mechanisms of actions of different classes of drugs that affect the function of chloride channel. (10)
- Explain the mechanism of action of diuretics that predominantly act on the collecting duct of the nephrons. (10)
- 5) Discuss cholinergic transmission and the drugs affecting it. Add a note on the muscarinic receptors and their secondary messengers. (10)

### **SECTION - B**

# Answer all the questions.

Answer the following (5 marks x = 25 marks)

- 6) Write the implications of the volume of distribution and plasma protein binding.
- 7) Explain the mechanism of action of antidepressant drugs. (5)

(5)

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8) Giving examples, list ten clinical uses of adrenergic agonists. (5)

9) Explain how erythrityl tetranitrate dilates veins. (5)

Describe the mechanism of action of anticholinesterases. Enumerate their therapeutic uses. (5)

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