

Question Paper

Exam Date & Time: 13-Jun-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND MBBS DEGREE EXAMINATION - JUNE 2022
SUBJECT: PHARMACOLOGY - PAPER I
(OLD REGULATION - 2018-19 BATCH - REPEATERS)

Marks: 100

Duration: 180 mins.

Answer all the questions.

Section Duration: 20 mins

1) Generic name of a drug is its: (1)

[Proprietary name](#)

[Non proprietary name](#)

[Chemical name](#)

[Brand name](#)

2) All the following are advantages of using prodrugs **EXCEPT** that they: (1)

[Can improve bioavailability of the drug](#)

[Provide site specific delivery of drugs](#)

[Can be used for emergency situations](#)

[Can prolong the duration of action of drugs](#)

3) Affinity is: (1)

[Ability of a drug to activate a receptor](#)

[Ability of a drug to combine with a receptor](#)

[Maximum response produced by a drug](#)

[Minimum drug required to produce a response](#)

4) All the following drugs exert their action by virtue of their physical property **EXCEPT**: (1)

[Mannitol](#)

[Bran](#)

[Charcoal](#)

[Magnesium trisilicate](#)

5) The true statement regarding Phase IV clinical trial is that: (1)

[It is conducted after the drug is marketed](#)

[It can be done on healthy volunteers](#)

[The main objective is to study the pharmacokinetic data](#)

[It can be done only by a clinical pharmacologist](#)

- 6) The actions of acetylcholine include all **EXCEPT**: (1)
- [Contraction of ciliary muscle](#)
 - [Vasodilation](#)
 - [Contraction of detrusor muscle](#)
 - [Tachycardia](#)
- 7) All the following drugs are used in Alzheimer's disease **EXCEPT**: (1)
- [Rivastigmine](#)
 - [Donepezil](#)
 - [Galantamine](#)
 - [Pyridostigmine](#)
- 8) All the following are endogenous catecholamines **EXCEPT**: (1)
- [Adrenaline](#)
 - [Noradrenaline](#)
 - [Isoprenaline](#)
 - [Dopamine](#)
- 9) The alpha blocker preferred in benign hypertrophy of prostate is: (1)
- [Phentolamine](#)
 - [Phenoxybenzamine](#)
 - [Tamsulosin](#)
 - [Prazosin](#)
- 10) The beta blocker which is NOT used in glaucoma is: (1)
- [Timolol](#)
 - [Propranolol](#)
 - [Betaxolol](#)
 - [Levobunolol](#)
- 11) The antihypertensive agent preferred in a patient with coexisting abnormal lipid profile is: (1)
- [Propranolol](#)
 - [Hydrochlorothiazide](#)
 - [Enalapril](#)
 - [Furosemide](#)
- 12) Which of the following acts on potassium channels? (1)
- [Nicorandil](#)
 - [Trimetazidine](#)
 - [Ranolazine](#)
 - [Dipyridamole](#)
- 13) Mannitol is used in: (1)
- [Acute pulmonary edema](#)
 - [Cerebral hemorrhage](#)
 - [Acute congestive glaucoma](#)
 - [Acute tubular necrosis](#)
- 14) All the following drugs can be used in paroxysmal supraventricular tachycardia **EXCEPT**: (1)
- [Lignocaine](#)
 - [Adenosine](#)

- [Esmolol](#)
[Verapamil](#)
- 15) Which of the following should **NOT** be used for productive cough? (1)
- [Bromhexine](#)
[Codeine](#)
[Guaiphenesin](#)
[Ambroxol](#)
- 16) Which of the following is **NOT** an antiplatelet agent? (1)
- [Abciximab](#)
[Ticlopidine](#)
[Ethamsylate](#)
[Tirofiban](#)
- 17) The primary indication for erythropoietin is: (1)
- [Iron deficiency anemia](#)
[Megaloblastic anemia](#)
[Hemolytic anemia](#)
[Anemia due to chronic renal failure](#)
- 18) All the following statements are TRUE about metoclopramide **EXCEPT** that it: (1)
- [Blocks dopamine \(D2\) and 5 HT3 receptors](#)
[Is preferred in morning sickness](#)
[Can cause dystonia](#)
[Can be used orally and parenterally](#)
- 19) Which of the following is a osmotic purgative? (1)
- [Bisacodyl](#)
[Lactulose](#)
[Docussates](#)
[Castor oil](#)
- 20) The chelating agent used for lead poisoning is: (1)
- [Desferrioxamine](#)
[Penicillamine](#)
[Calcium disodium edetate](#)
[Deferiprone](#)

Answer all the questions.

- 1A) Define bioavailability. Explain five factors which influence bioavailability of a drug. (1+5 = 6 marks) (6)
- 1B) Add a note on newer drug delivery systems. (4)
- 2A) Enumerate the different groups of drugs used for congestive heart failure with examples. Explain the mechanism of action and adverse effects of enalapril. (4+2+1 = 7 marks) (7)
- 2B) Add a note treatment of hypertensive crisis. (3)

3. Answer the following:

- 3A) Explain therapeutic index with suitable examples. (4)
- 3B) Write briefly on nasal decongestants. (4)
- 3C) Mention the atropine substitutes. Explain any three uses of them. (4)
- 3D) Define drug tolerance. Explain the various mechanisms of development of tolerance. (4)
- 3E) Explain dose dependent actions of dopamine. (4)
- 3F) Explain the drug therapy for severe migraine. (4)
- 3G) Name four second generation antihistamines. Mention their advantages over first generation antihistamines. (4)
- 3H) Classify drugs used in peptic ulcer. Explain the mechanism of any one group. (4)
- 3I) Explain the mechanism of low molecular weight heparin. Mention two advantages of them over conventional heparin. (4)
- 3J) Classify hypolipidemic drugs. (4)
- 3K) Explain the mechanism of action, uses and adverse effects of theophylline. (4)
- 3L) Name the inhalational steroids. What are their advantages over systemic steroids? (4)
- 3M) Name two calcium channel blockers belonging to different groups. Explain any three uses of them. (4)
- 3N) Name two drugs belonging to different groups used in the treatment of myasthenia gravis. Explain the basis for the same. (4)
- 3O) Name four different classes of drugs with examples used in the treatment of myocardial infarction. Explain the basis for each. (4)

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MANIPAL ACADEMY OF HIGHER EDUCATION
SECOND MBBS DEGREE EXAMINATION – JUNE 2022

SUBJECT: PHARMACOLOGY – PAPER II (ESSAY)

(OLD REGULATION - 2018-19 BATCH - REPEATERS)

Tuesday, June 14, 2022

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ Answer ALL the questions.

1. Classify antiretroviral drugs with examples. Explain the combined antiretroviral therapy with rationale for the combination. Add a note on post-exposure prophylaxis against HIV.

(4+4+2 = 10 marks)

2. Enumerate four selective serotonin reuptake inhibitors. Explain the mechanism of action, therapeutic uses and important drug interactions of any one. Write the adverse effects of imipramine.

(2+2+2+2+2 = 10 marks)

3. **Answer the following:**

3A. Explain the treatment of vivax and falciparum malaria.

3B. Explain the therapy of multibacillary leprosy with rationale.

3C. Explain the clinical uses and important drug interaction of metronidazole.

3D. Write briefly on diethyl carbamazine.

3E. Elaborate the measures taken to prevent antimicrobial drug resistance.

3F. Write briefly on olanzapine.

3G. Explain the mechanism of action and uses of sodium valproate.

3H. Name the Disease Modifying Anti-Rheumatic Drugs. Explain the mechanism of action of any one.

3I. Explain four clinical uses of diazepam.

3J. Comment on the role of dopamine agonists in Parkinson's disease.

3K. Explain the adverse effects of chronic use of glucocorticoids.

3L. Enumerate two prolactin inhibitors. Explain two uses of any one.

3M. Write briefly on insulin sensitizers.

3N. Explain the contraindications of hormonal contraception in females.

3O. Write the pharmacotherapy of thyrotoxic crisis.

(4 marks × 15 = 60 marks)

