

Exam Date &amp; Time: 30-Dec-2021 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

### Pharmacology II [PHA-BP503T - S2]

Marks: 75

Duration: 180 mins.

#### I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Which of the following drug combination is not advisable in angina?

1) Propranolol + Isosorbide dinitrate	2) Nifedipine + Isosorbide dinitrate	3) Propranolol + verapamil	4) Amlodipine + Isosorbide mononitrate	(1)
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2) Identify the hyperlipidaemic drug that acts via nuclear receptors?

1) Ezetimibe	2) Gemfibrozil	3) Atorvastatin	4) Nicotinic acid	(1)
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3) Which among the following drugs will slow down the pace of repolarization, after the depolarization of an excitable cardiac cell?

1) Bretylium	2) Lidocaine	3) Esmolol	4) Disopyramide	(1)
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4) Which of the following enzymes is inhibited by methotrexate?

1) Folate reductase	2) Dihydrofolate reductase	3) Thymidylate synthase	4) Xanthine oxidase	(1)
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5) Which of the following drugs reduce the effect of oral anticoagulants?

1) Broad spectrum antibiotics	2) Aspirin	3) Oral contraceptives	4) Erythromycin	(1)
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6) All the following drugs work to lyse a clot that is already formed, except

1) Streptokinase	2) Kallikrein	3) Plasmin	4) Aprotinin	(1)
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7) Which of the following antiplatelet drugs is an enzyme inhibitor?

(1)

1) Ticlopidine	2) Dipyridamole	3) Abciximab	4) Eptifibatide
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8) Which among the following is a second-generation anti-histaminic drug?

1) Promethazine	2) Pheniramine	3) Chlorpheniramine	4) Azelastine
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(1)

9) Which among the following is a serotonergic receptor agonist?

1) Ondansetron	2) Methysergide	3) Fluoxetine	4) Cisapride
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(1)

10) Select the drug which blocks COX-2 enzyme selectively.

1) Ketorolac	2) Ibuprofen	3) Etoricoxib	4) Piroxicam
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(1)

11) Which among the following is an antagonist of substance P receptors?

1) Morapitant	2) Saralasin	3) Tranexemic acid	4) Icatibant
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(1)

12) Which of the following drugs is preferred for patients with essential hypertension and congestive heart failure?

1) Vasodilators	2) Centrally acting antihypertensives	3) Diuretics	4) Calcium channel blockers
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(1)

13) Action of lysine vasopressin on the renal system is through

1) V1 type receptors	2) Aquaporin-2 receptors	3) Renal cholinergic receptors	4) Renal dopaminergic receptors
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(1)

14) Which extracellular mediator is released in response to growth hormones and promotes lipogenesis and glucose uptake by skeletal muscles?

(1)

1) Insulin	2) IGF-1	3) Thyroxine	4) Norepinephrine
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15) Which enzyme converts cortisone to hydrocortisone and can be a drug target for type-2 diabetes in preventing insulin resistance.

(1)

1) 11 $\beta$ HSD1	2) Aromatase	3) Hydroxylase	4) $\beta$ -Hydroxylase
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16) Which of the following drugs is the most commonly used in "hormone replacement therapy"?

1) Estrogens	2) Testosterones	3) Anabolic steroids	4) Growth hormones
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(1)

17) Which of the following drugs is used as a tocolytic agent (1)

1) Ritodrine	2) Adrenaline	3) Oxytocin	4) ADH
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18) Which of the following is the most potent androgen (1)

1) Testosterone	2) Dihydrotestosterone	3) Androsterone	4) androstenedione
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19) Which tissue is used for the bioassay of serotonin? (1)

1) Guinea pig ileum	2) Frog heart	3) Rabbit jejunum	4) Rat aorta
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20) Which of the following is an important indication for bioassay (1)

1) Unknown chemical composition, but the substance has specific pharmacological actions	2) Sufficient knowledge of chemical property of the substance	3) Alternative to the chemical method of bioassay	4) Potency and the chemical nature is known for the given substance
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### II Long Answers

**Answer all the questions.**

- 1) Describe the formation, storage and release of thyroid hormones and mention the mechanism of action of drugs used in thyroid diseases. (10)
- 2) Classify the oral contraceptives with their mechanism of action and limitations. (10)

### III Short Answers

**Answer all the questions.**

- 1) Explain how nitrates may be useful in the management of cyanide poisoning? Why is nitroglycerine not used for this purpose? (5)
- 2) Draw a flowchart to show how platelets aid in thrombus formation. List the drugs affecting the processes. (5)
- 3) List the drugs affecting serotonergic neuro-transmission. (5)
- 4) Explain how colchicine is useful in the management of gout. (5)

- 5) Discuss the mechanism of action and therapeutic uses of digoxin. (5)
- 6) Discuss the mechanism and therapeutic uses of potassium-sparing diuretics. (5)
- 7) Listing examples from the currently available anti-diabetic drugs, explain five mechanisms by which these drugs act. (5)

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