

Question Paper

Exam Date & Time: 30-Dec-2023 (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) This antihypertensive is found safer during pregnancy (1)
- [Methyldopa](#)
[Enalapril](#)
[Propranolol](#)
[Sodium nitroprusside](#)
- 2) One among the following is a contraindication to plasma expander (1)
- [Burns](#)
[Trauma](#)
[Pulmonary edema](#)
[Hypovolemic shock](#)
- 3) Tofacitinib belongs to a class of medications known as: (1)
- [Nonsteroidal anti-inflammatory drugs \(NSAIDs\)](#)
[Disease-modifying anti-rheumatic drugs \(DMARDs\)](#)
[Biologic response modifiers](#)
[Corticosteroids](#)
- 4) Common side effects associated with acarbose use include: (1)
- [Hypoglycemia](#)
[Weight gain](#)
[Flatulence and gastrointestinal disturbances](#)
[Bradycardia](#)
- 5) Steroid use can negatively impact the skin by: (1)
- [Decreasing the risk of acne](#)
[Increasing the risk of eczema](#)
[Enhancing wound healing](#)
[Predisposing to skin thinning and easy bruising](#)
- 6) Identify the mixed vasodilator which may be given for restoration of cardiac performance in CHF (1)
- [Isosorbide dinitrate](#)
[Sodium nitroprusside](#)
[Nifedipine](#)

- 7) [Nicorandil](#) (1)
Which drug alters surface receptors on platelets and inhibits ADP?
- 8) [Nifedipine](#)
[Nicardipine](#)
[Amlodipine](#)
[Ticlopidine](#) (1)
Anti-thyroid drugs are typically more effective in treating:
- 9) [Graves' disease](#)
[Hashimoto's thyroiditis](#)
[Thyroid storm](#)
[Thyroid cancer](#) (1)
The insulin receptor is a:
- 10) [Tyrosine kinase-linked receptor](#)
[G protein-coupled receptor](#)
[Serine-threonine kinase receptor](#)
[Ligand-gated ion channel](#) (1)
Aquaporins play a crucial role in the action of ADH by:
- 11) [Increasing sodium reabsorption](#)
[Regulating chloride levels](#)
[Facilitating water movement across cell membranes](#)
[Inhibiting glucose reabsorption](#) (1)
First choice drug for acute therapy of paroxysmal supraventricular tachycardia
- 12) [Adenosine](#)
[Amiodarone](#)
[Disopyramide](#)
[Dofetilide](#) (1)
This class of drugs primarily activate lipoprotein lipase and action is exerted through PPAR-alpha
- 13) [Bile acid sequestrants](#)
[Fibric acid derivatives](#)
[Nicotinic acid analogues](#)
[Statins](#) (1)
Which hormone is often referred to as the "stress hormone" and plays a role in the body's response to stress?
- 14) [Growth hormone \(GH\)](#)
[Adrenocorticotrophic hormone \(ACTH\)](#)
[Prolactin \(PRL\)](#)
[Luteinizing hormone \(LH\)](#) (1)
SGLT-2 inhibitors primarily act on which organ in the body to lower blood glucose levels?
- [Liver](#)
[Pancreas](#)
[Kidneys](#)
[Heart](#)

- 15) What are the essential characteristics of the three points in a three-point assay? (1)
- [They should be equidistant from each other.](#)
[They should have similar absorbance values.](#)
[They should be standard concentrations in a linear range.](#)
[They should represent replicates of the same sample.](#)
- 16) Which drug is given sublingually to terminate an anginal attack? (1)
- [Atenolol](#)
[Dipyridamole](#)
[Isosorbide dinitrate](#)
[Lacidipine](#)
- 17) Which is not a metabolic function of folic acid? (1)
- [Conversion of methionine to homocysteine](#)
[Conversion of homocysteine to methionine](#)
[Conversion of serine to glycine](#)
[Conversion of lysine to proline](#)
- 18) What is the clinical implication of Finasteride inhibition of 5-alpha-reductase? (1)
- [Increased risk of prostate cancer](#)
[Reduction in dihydrotestosterone \(DHT\) levels](#)
[Elevated levels of testosterone](#)
[Enhanced estrogen synthesis](#)
- 19) Allopurinol specifically inhibits (1)
- [Xanthine oxidase](#)
[Arginase](#)
[Carbamoyl transferase](#)
[Urease](#)
- 20) What is the primary therapeutic use of SERMs such as Raloxifene? (1)
- [Treatment of breast cancer](#)
[Prevention of osteoporosis](#)
[Management of endometriosis](#)
[Hormone replacement therapy in menopause](#)

II Long Answers

Answer all the questions.

- 1) With a schematic representation, describe the intestinal absorption, transport, utilization, storage and excretion of iron (10)
- 2) AT is a 28-year-old woman who recently shifted into a flat with new furniture and carpeting. She experienced symptoms of rhinitis on a previous occasion. Now she has a runny and stuffy nose, plus itching and sneezing. Give your medication recommendations as a pharmacist. Explain the pharmacological actions of class of drugs in this case. List their clinical uses and side effects (10)

III Short Answers

Answer all the questions.

- 1) Describe the mechanism of action of glyceryl trinitrate. Mention its uses and side effects (2+2+1) (5)
- 2) Classify oral antidiabetics. Explain the mechanism of action of any one oral hypoglycemic agents. (5)

Mention their adverse effects.

- 3) Classify Diuretics and explain the mechanism of action of Acetazolamide (5)
- 4) Describe the cellular mechanisms of actions of steroidal hormones. (5)
- 5) Classify estrogens. Describe the actions of estrogens on sex organs, secondary sexual characteristics and metabolism. List out the adverse effects of estrogens (5)
- 6) Explain the mechanism of action of class I anti-arrhythmic drugs. Enumerate its uses and adverse effects (5)
- 7) Classify NSAIDs, Write short notes on Paracetamol poisoning (5)

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