

Exam Date &amp; Time: 12-Dec-2022 (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) Dry cough is an adverse effect of - (1)
- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| 1) Valsartan | 2) Imidapril | 3) Aliskiren | 4) Icatibant |
|--------------|--------------|--------------|--------------|
- 2) Which of the given channels is inhibited by digoxin? (1)
- |  |   |                                       |                           |
|--|---|---------------------------------------|---------------------------|
| 1) Na <sup>+</sup> /Ca <sup>2+</sup> exchanger | 2) Na <sup>+</sup> /K <sup>+</sup> ATPase | 3) Ryanodine receptor calcium channel | 4) L-Type calcium channel |
|--|---|---------------------------------------|---------------------------|
- 3) Which among the following anti-hypertensive drugs produce postural hypotension? (1)
- |                |               |             |             |
|----------------|---------------|-------------|-------------|
| 1) Candesartan | 2) Nifedipine | 3) Prazosin | 4) Atenolol |
|----------------|---------------|-------------|-------------|
- 4) Which of the given anti-hyperlipidaemic drugs act via GPCRs? (1)
- |                 |                |              |                   |
|-----------------|----------------|--------------|-------------------|
| 1) Atorvastatin | 2) Fenofibrate | 3) Ezetimibe | 4) Nicotinic acid |
|-----------------|----------------|--------------|-------------------|
- 5) Which among the following is the citrovorum factor? (1)
- |                |                  |                     |                    |
|----------------|------------------|---------------------|--------------------|
| 1) methyl-THFA | 2) 5-formyl-THFA | 3) Hydroxocobalamin | 4) Methylcobalamin |
|----------------|------------------|---------------------|--------------------|
- 6) Identify the drug that can lyse a blood clot- (1)
- |              |            |             |              |
|--------------|------------|-------------|--------------|
| 1) Lepirudin | 2) Heparin | 3) Warfarin | 4) Alteplase |
|--------------|------------|-------------|--------------|
- 7) Which among the following is a weak agonist of the histamine H<sub>1</sub> receptor- (1)
- |                |              |               |                 |
|----------------|--------------|---------------|-----------------|
| 1) Betahistine | 2) Meclizine | 3) Azelastine | 4) Triprolidine |
|----------------|--------------|---------------|-----------------|
- 8) Identify the prostaglandin analogue that is used topically for in the management of glaucoma- (1)
- |                |                |               |                 |
|----------------|----------------|---------------|-----------------|
| 1) Alprostadil | 2) Latanoprost | 3) Carboprost | 4) Epoprostenol |
|----------------|----------------|---------------|-----------------|
- 9) Serotonin is metabolized in the body into (1)
- |                         |                      |                          |                |
|-------------------------|----------------------|--------------------------|----------------|
| 1) Imidazoleacetic acid | 2) Indoleacetic acid | 3) Vanillylmandelic acid | 4) Acetic acid |
|-------------------------|----------------------|--------------------------|----------------|
- 10) Identify the lipid derived local hormone- (1)
- |                 |              |               |                |
|-----------------|--------------|---------------|----------------|
| 1) Leukotrienes | 2) Serotonin | 3) Bradykinin | 4) Angiotensin |
|-----------------|--------------|---------------|----------------|
- 11) Febuxostat is used in the treatment of (1)
- |               |                    |         |                   |
|---------------|--------------------|---------|-------------------|
| 1) Rheumatoid | 2) Dermatomyositis | 3) Gout | 4) Postmenopausal |
|---------------|--------------------|---------|-------------------|

arthritis								osteoporosis
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12) The drugs used in rheumatoid arthritis in addition to NSAIDs are also called as

1) Fast acting antirhumatic drugs	2) Disease modifying antirheumatic drugs	3) Uricosuric agents	4) TNF $\alpha$ stimulators	(1)
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13) Which of the following has both estrogenic and anti-estrogenic property?

1) Chlorpromazine	2) Clofibrate	3) Clomiphene	4) Clonidine	(1)
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14) Which of the following can cause lactic acidosis?

1) Biguanides	2) Glibenclamide	3) Tolbutamide	4) Chlorpropamide	(1)
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15) Mechanism of action of Calcitriol is

1) Decrease calcium resorption calcium from bone	2) Increase calcium absorption from intestine	3) Decreased calcium absorption from kidney	4) Decrease calcium absorption from intestine	(1)
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16) Common side effect of thiazolidinediones is

1) Dysguesia	2) Hypoglycemia	3) Water retention with weight gain	4) Anemia	(1)
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17) Conversion of T<sub>4</sub> to T<sub>3</sub> inhibition is associated with

1) Propylthiouracil	2) Lugol's iodine	3) Carbimazole	4) Neomercazole	(1)
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18) Which of the following drugs DO NOT cause hyperprolactinemia?

1) Haloperidol	2) Reserpine	3) Bromocriptine	4) Chlorpromazine	(1)
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19) Toxic effect of long term administration of a glucocorticoid include

1) Hepatototoxicity	2) Osteoporosis	3) Precocioud puberty	4) Lupus like syndrome	(1)
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20) Mechanism of action of Oxytocin is through

1) Specific G protein-coupled receptors, activation of adenylyate cyclase	2) Specific G protein-coupled receptors, activation of Phospholipase C	3) Nuclear Receptor	4) Enzyme-linked receptor	(1)
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## II Long Answers

Answer all the questions.

1) Explain the absorption, storage, transport and utilization of iron in the body (10)

Classify oral antidiabetics. With a neat diagram, explain the mechanism of action of Canagliflozine, Glipride and Saxagliptin (10)

### III Short Answers

Answer all the questions.

- 1) Illustrate how organic nitrates produce vasorelaxation. List two adverse effects of nitrates. (5)
- 2) Illustrating its effect on action potential of SA nodal cells, explain how verapamil is useful as an anti-arrhythmic drug. (5)
- 3) With the help of a diagram, explain how spironolactone produces diuretic effect. (5)
- 4) Explain a method to conduct the bioassay of a) histamine and b) Serotonin (5)
- 5) Explain Pharmacological actions of NSAIDs (5)
- 6) Write briefly on the actions and uses of glucocorticoids (5)
- 7) Mention the therapeutical uses of Progesterone, Estrogen and Anabolic steroids (5)

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