

## EXAM 2021-22 PHARMACOLOGY

### GENERAL PHARMACOLOGY

1. Determine the pharmacokinetic parameters
2. Determine the advantages of the sublingual route of administration
3. Determine the advantages of the rectal route of administration
4. Determine the mechanisms of drug absorption
5. Determine the peculiarities of drug absorption related to the pH of the environment
6. Determine the mechanisms of penetration of drugs through membranes and biological barriers
7. Determine the peculiarities of the passive diffusion of drugs
8. Determine the peculiarities of the active transport of drugs
9. Determine the peculiarities of the free form of drugs in the plasma
10. Determine the peculiarities of the bound form of drugs in the plasma
11. Determine the peculiarities of the volume of drug distribution
12. Determine the pathways of phase I of drug metabolism
13. Determine the pathways of phase II of drug metabolism
14. Determine the groups of drugs that are inducers of liver microsomal enzymes
15. Determine the groups of drugs that are inhibitors of liver microsomal enzymes
16. Determine the consequences of induction of hepatic microsomal enzymes
17. Determine the consequences of inhibition of hepatic microsomal enzymes
18. Determine the mechanisms of renal elimination of drugs
19. Determine the peculiarities of renal elimination of drugs depending on the pH of the urine
20. Determine the particularities of the half-life of the drugs
21. Determine the particularities of the primary action of the drug, pharmacodynamic action and overall pharmacological effect of drugs
22. Determine the typical mechanisms of action of drugs
23. Determine the phenomena of concomitant administration of drugs
24. Determine the phenomena of repeated administration of drugs
25. Determine the characteristics of the rebound effect
26. Determine the characteristics of the withdrawal syndrome
27. Determine the characteristics of the functional insufficiency while using drugs
28. Determine the safety parameters of the drugs
29. Determine the enzymes whose genetic polymorphism may alter the pharmacokinetics of drugs
30. Determine the enzymes whose genetic polymorphism may alter the pharmacodynamics of drugs
31. Determine the genetic polymorphism of enzymes involved in the phase II of drug metabolism
32. Determine the side effects of drugs on pregnancy
33. Determine the phenomena of drug addiction
34. Determine the definition of the therapeutic index
35. Determine the definition of the therapeutic range

### VEGETOTROPIC DRUGS

1. Select the M-N-cholinomimetics with direct action
2. Select the M-N-cholinomimetics with indirect moderately reversible action
3. Select the M-N-cholinomimetics with indirect irreversible action
4. Select the M-cholinomimetics
5. Select the effects of M-N and M-cholinomimetics on the eye
6. Select the mechanisms of myosis in M – cholinomimetics administration
7. Select the mechanisms of influence on intraocular pressure in M – cholinomimetics administration
8. Select the effects of M-N and M-cholinomimetics on the digestive tract

9. Select the effects of M-N and M-cholinomimetics on the heart and bronchi
10. Select the effects of M-N and M-cholinomimetics on exocrine glands and urinary system
11. Select the symptoms of M-cholinomimetic intoxication
12. Select drugs used in intoxication with M-cholinomimetics
13. Select the symptoms of organophosphorus compound intoxication
14. Select the phases of organophosphorus compound intoxication.
15. Select drugs used in organophosphorus compound intoxication
16. Select the indications for M-cholinomimetics
17. Select the indications for anticholinesterases
18. Select the effects of N - cholinomimetics
19. Select the M-cholinoblockers
20. Select the effects of M-cholinoblockers on the eye
21. Select the mechanisms of mydriasis in M – cholinoblocker administration.
22. Select the mechanisms of influence on intraocular pressure in M – cholinoblocker administration.
23. Select the effects of M-cholinoblockers on the digestive tract
24. Select the effects of M-cholinoblockers on the heart and bronchi
25. Select the effects of M-cholinoblockers on exocrine glands and urinary system
26. Select the symptoms of poisoning with M-cholinoblockers
27. Select the drugs used in poisoning with M-cholinoblockers
28. Select the indications for M-cholinoblockers
29. Select ganglioblockers with short, medium and long duration of action
30. Select the indications of the ganglioblockers
31. Select the side effects of ganglioblockers
32. Select the myorelaxants with antidepolarizing and depolarizing action
33. Select the mechanism of antidepolarizing action of myorelaxant drugs.
34. Select the mechanism of depolarizing action of myorelaxant drugs
35. Select the indications for myorelaxant drugs
36. Select the principles for decurarization of antidepolarizing and depolarizing myorelaxants
37. Determine the alpha-1-adrenoblocker drugs
38. Determine the beta-1-adrenoblocker drugs
39. Determine the beta-adrenoblocker drugs with vasodilating action
40. Determine non-selective beta-adrenoblocker drugs
41. Determine the alpha-beta-adrenoblocker drugs
42. Determine non-selective alpha-adrenoblockers
43. Determine the dopaminoblocker drugs
44. Determine the sympatholytic drugs
45. Determine the alpha-beta-adrenomimetic drugs
46. Determine the alpha-2-adrenomimetic drugs with peripheral action
47. Determine beta-2-adrenomimetic drugs
48. Determine beta-1-adrenomimetic drugs
49. Determine non-selective beta-adrenomimetic drugs
50. Determine alpha-1-adrenomimetic drugs
51. Determine alpha-2-adrenomimetic drugs with central action
52. Determine the adrenomimetic drugs that promote the release of mediators
53. Determine the adrenomimetic drugs that inhibit the reuptake of mediators
54. Determine adrenomimetic drugs with mixed mechanism of action
55. Determine the groups of adrenergic drugs that increase blood pressure
56. Determine the groups of adrenergic drugs that cause stimulating effects on the heart
57. Determine the groups of adrenergic preparations that lower blood pressure
58. Determine the groups of adrenergic preparations that produce bronchodilation
59. Determine the groups of adrenergic drugs that increase glucose levels

60. Determine the groups of adrenergic drugs that impair microcirculation
61. Determine the effects of alpha-beta-adrenomimetics on the heart
62. Determine the effects of alpha-beta-adrenomimetics on blood vessels
63. Determine the effects of alpha-beta-adrenomimetics on blood pressure
64. Determine the effects of alpha-adrenomimetics on blood pressure
65. Determine the effects of alpha-beta-adrenomimetics on microcirculation
66. Determine the effects of alpha-adrenomimetics on microcirculation
67. Determine the effects of alpha-beta-adrenomimetics on metabolism
68. Determine the effects of alpha-beta-adrenomimetics on the respiratory system
69. Determine the effects of beta-adrenomimetics on the heart
70. Determine the effects of alpha-adrenomimetics on blood vessels
71. Determine the effects of dopaminomimetics on the heart
72. Determine the effects of high-dose dopaminomimetics on blood vessels
73. Determine the effects of low-dose dopaminomimetics on blood vessels
74. Determine the effects of dopaminomimetics in medium doses on the heart
75. Determine the effects of beta-adrenomimetics on metabolism
76. Determine the effects of beta-adrenomimetics on the respiratory system
77. Determine the effect and mechanism of influence of alpha-adrenomimetics on the heart
78. Determine the effects of epinephrine on blood pressure
79. Determine the effects of norepinephrine on blood pressure
80. Determine how epinephrine differs from norepinephrine in their action on blood pressure
81. Determine the indications for alpha-beta-adrenomimetics
82. Determine the indications for alpha-adrenomimetics
83. Determine the indications for beta-2-adrenomimetics
84. Determine the indications for beta -1 -adrenomimetics
85. Determine the indications for dopaminomimetics
86. Determine the drugs used in hypotonic hypotension
87. Determine the drugs used in hypertonic hypotension
88. Determine the drugs used in anaphylactic shock
89. Determine the groups of drugs used in rhinitis, conjunctivitis
90. Determine preparations that cause tocolytic effect
91. Determine the side effects of alpha-beta-adrenomimetics
92. Determine the side effects of alpha-adrenomimetics
93. Determine the side effects of beta-adrenomimetics
94. Determine the side effects of beta-adrenoblockers
95. Determine the side effects of alpha-adrenoblockers
96. Determine the side effects of sympatholytics
97. Determine the mechanisms of action of sympatholytics.

## **DRUGS ACTING ON THE CNS.**

1. Select volatile inhaled general anesthetics
2. Select gasses inhaled general anesthetics
3. Select the mechanisms of action of general anesthetics
4. Select groups of general intravenous anesthetics
5. Select short-action general intravenous anesthetics
6. Select medium-action intravenous general anesthetics
7. Select long-acting intravenous general anesthetics
8. Select groups of hypnotics
9. Select the hypnotics from the barbiturate group
10. Select the hypnotics from the benzodiazepine group
11. Select the hypnotics from the non-benzodiazepine group

12. Select the hypnotics from the melatonin agonists group
13. Select hypnotics with short duration of action
14. Select hypnotics with medium duration of action
15. Select hypnotics with long duration of action
16. Select the mechanisms of hypnotic action of barbiturates
17. Select the characteristics of the hypnotic effect of barbiturates
18. Select the characteristic effects of barbiturates
19. Select the barbiturates indications
20. Select side effects of barbiturates
21. Select the mechanisms of hypnotic action of benzodiazepines
22. Select the characteristics of the hypnotic effect of benzodiazepines
23. Select the characteristic effects of benzodiazepines
24. Select benzodiazepine indications
25. Select the side effects of benzodiazepines
26. Select the mechanisms of hypnotic action of non-benzodiazepines
27. Select the characteristics of the hypnotic effect of non-benzodiazepines
28. Select the non-benzodiazepines indications
29. Select the side effects of non-benzodiazepines
30. Select the mechanisms of hypnotic action of melatonin agonists
31. Select the characteristics of the hypnotic effect of melatonin agonists
32. Select the pleiotropic effects of melatonin agonists
33. Select the indications for melatonin agonists
34. Select melatonin receptor agonists as hypnotics
35. Select orexin receptor antagonists as hypnotics
36. Select the characteristics of orexin receptor antagonists as hypnotic
37. Select hypnotics used in disorders of falling asleep (the initial hyposomnia)
38. Select hypnotics used in nocturnal frequent wakings (intermittent hyposomnia)
39. Select hypnotics used in decreased duration of sleep or early awakening (terminal hyposomnia)
40. Select the groups of symptomatic anticonvulsants
41. Select the groups of symptomatic anticonvulsants that strongly inhibit the respiratory center
42. Select groups of symptomatic anticonvulsants that weakly inhibit the respiratory center
43. Select spasmolytics of skeletal muscles (central myorelaxants)
44. Select the characteristics of the muscle relaxant effect of benzodiazepines
45. Select the indications for benzodiazepines as central muscle relaxants
46. Select benzodiazepines used as central muscle relaxants
47. Select the drugs from various pharmacological groups used as the central muscle relaxants
48. Select the drugs used in major epileptic seizures
49. Select the drugs used in minor epileptic seizures
50. Select the drugs used in epileptic seizure (status epilepticus)
51. Select the drugs used in epileptic focal seizures
52. Select the mechanisms of action of antiepileptics
53. Select the groups of antiparkinsonian drugs
54. Select dopaminergic drugs as antiparkinsonian
55. Select cholinoblockers used as antiparkinsonian
56. Select the mechanisms of action of antiparkinsonian drugs
57. Select the types of local action of ethyl alcohol
58. Select the indications for ethyl alcohol in medicine
59. Select the consecutive order of influence of ethyl alcohol on the CNS
60. Select the effects of ethyl alcohol on the stomach depending on the concentration
61. Select metabolic changes in the liver under the action of ethyl alcohol
62. Select the peculiarities of ethyl alcohol absorption according to concentration
63. Select the peculiarities of the distribution of ethyl alcohol

64. Select the routes of metabolism of ethyl alcohol
65. Select the groups of drugs used in alcohol withdrawal syndrome
66. Select the groups of drugs used in the treatment of alcohol dependence
67. Select the peculiarities of the mechanism of action of disulfiram
68. Select the groups of antimicrobials that may cause a disulfiram reaction
69. Select the peculiarities of the mechanism of action of naltrexone in alcoholism
70. Select the groups of drugs used as sedatives
71. Select the indications for sedative drugs
72. Select the peculiarities of the sedative effect of herbal drugs
73. Select the groups of anxiolytic drugs
74. Select anxiolytics with a short duration of action
75. Select anxiolytics with a medium duration of action
76. Select anxiolytics with a long duration of action
77. Select the mechanism of action of benzodiazepine anxiolytics
78. Select the effects of anxiolytics
79. Select the indications for benzodiazepine anxiolytics
80. Select the side effects of benzodiazepine anxiolytics
81. Select the groups of typical antipsychotics
82. Select the groups of atypical antipsychotics
83. Select the peculiarities of the mechanism of action of antipsychotics
84. Select the effects of antipsychotics
85. Select the mechanism of the sedative effect of antipsychotics
86. Select the mechanism of the antipsychotic effect of antipsychotics
87. Select the indications for antipsychotics in psychiatry
88. Select the indications for antipsychotics in somatic diseases
89. Select side effects of antipsychotics on CNS
90. Select ophthalmic side effects of antipsychotics
91. Select endocrine side effects of antipsychotics
92. Select cardiovascular side effects of antipsychotics
93. Select the side effects of antipsychotics on digestive system
94. Select thymoisoleptic groups and drugs
95. Select the mechanisms of action of thymoisoleptics
96. Select the effects of thymoisoleptics
97. Select the indications of the normothymics
98. Select antidepressants that non-selectively inhibit monoamine reuptake
99. Select antidepressants that selectively inhibit serotonin reuptake
100. Select antidepressants that selectively inhibit norepinephrine reuptake
101. Select antidepressants that irreversibly inhibit monoamine metabolism
102. Select antidepressants that reversibly inhibit monoamine metabolism
103. Select the effects of antidepressants
104. Select the mechanism of action of heterocyclic antidepressants
105. Select other mechanisms of action (actions) of heterocyclic antidepressants
106. Select the mechanisms of action of antidepressants with action over the metabolism of monoamines
107. Select the central side effects of heterocyclic antidepressants
108. Select peripheral side effects of heterocyclic antidepressants
109. Select the side effects of MAOI antidepressants
110. Select cerebrovasoactive nootropics
111. Select the groups of nootropic drugs
112. Select the mechanisms of action of nootropic drugs
113. Select the effects of nootropics
114. Select nootropic indications

115. Select nootropic si effects
116. Select the psychostimulants from the phenylalkylamine group
117. Select the psychostimulants from the piperidine group
118. Select the mechanisms of action of psychostimulants from the amphetamine group
119. Select the effects of psychostimulant drugs from phenylalkylamine group
120. Select the indications of psychostimulants
121. Select the adverse reactions of psychostimulants when using time is limited
122. Select the adverse reactions of psychostimulants in chronic abuse
123. Select the effects of psychostimulants from methylxanthines
124. Select the indications of psychostimulants from the methylxanthine group
125. Select the side effects of psychostimulants from methylxanthines in excessive doses
126. Select strong opioid analgesic agonists
127. Select the medium and weak agonists of opioid analgesics
128. Select opioid analgesic agonists-antagonists
129. Select opioid analgesic antagonists
130. Select centrally acting non-opioid analgesics
131. Select analgesics with mixed mechanism of action
132. Select analgesics with peripheral action
133. Select the mechanism of action of opioid analgesics at the systemic level
134. Select the levels of achievement of the analgesic action of opioid analgesics
135. Select the result of the action of opioid analgesics in the posterior horns of the spinal cord
136. Select the result of the action of opioid analgesics on the thalamus, hypothalamus, reticulated formation
137. Select the result of the action of opioid analgesics in the cerebral cortex
138. Select the actions of opioid analgesics on the psychic sphere
139. Select centers that are stimulated by opioid analgesics
140. Select centers that are inhibited by opioid analgesics
141. Select the effects of opioid analgesics on the digestive tract
142. Select the effects of opioid analgesics on the cardiovascular system
143. Select the effects of opioid analgesics on the respiratory system
144. Select the indications for opioid analgesics
145. Select the side effects of opioid analgesics from the CNS
146. Select the side effects of opioid analgesics from the digestive tract
147. Select the side effects of opioid analgesics from the respiratory system
148. Select the side effects of opioid analgesics from the urinary system
149. Select the mechanisms of action of paracetamol
150. Select the indications for paracetamol
151. Select the side effects of paracetamol
152. Select the mechanisms of action of tramadol
153. Select the indications for tramadol
154. Select side effects of tramadol
155. Select the mechanisms of action of peripherally acting analgesics
156. Select the effects of analgesics with peripheral action
157. Select the indications for peripherally acting analgesics

## **ANTITHROMBOTIC, HEMOSTATIC AND ANTIANEMIC**

1. Determine groups of anticoagulants with direct action
2. Determine the groups of antiplatelet agents
3. Determine direct factor Xa antagonists
4. Determine direct thrombin antagonists
5. Determine heparinoids as anticoagulants

6. Determine the indirect anticoagulant drugs
7. Determine the antagonists of thromboxane A<sub>2</sub> receptors
8. Determine the antiaggregant drug that inhibit phosphodiesterase
9. Determine the antiaggregant drugs that inhibit cyclooxygenase
10. Determine the antiaggregant drugs that block purinergic receptors
11. Determine the antiaggregant drugs that inhibit thromboxane synthase
12. Determine the antiaggregant drugs that reduce blood viscosity
13. Determine the antiaggregant drugs that block GPIIb / IIIa receptors
14. Determine the characteristic effects of standard heparin
15. Determine the mechanism of anticoagulant action of standard heparin
16. Determine the mechanism of anticoagulant action of low molecular weight heparins
17. Determine the mechanism of action of indirect anticoagulants
18. Determine the mechanism of antiplatelet action of clopidogrel
19. Determine the mechanism of antiplatelet action of acetylsalicylic acid
20. Determine the mechanism of antiplatelet action of pentoxifylline
21. Determine the mechanism of antiplatelet action of ridogrel
22. Determine the antiplatelet mechanism of abciximab
23. Determine the mechanism of antiplatelet action of dipyridamole
24. Determine the mechanism of antiplatelet action of prostaglandin analogues
25. Determine the peculiarities of acetylsalicylic acid as an antiplatelet agent
26. Determine the indications for standard heparin
27. Determine the indications for low molecular weight heparins
28. Determine the indications for sulodexide
29. Determine the indications for indirect anticoagulants
30. Determine the indications for indirect fibrinolytics
31. Determine indications for antiaggregant drugs
32. Determine the indications for dextrans as antithrombotics
33. Determine the side effects of standard heparin
34. Determine the groups and haemostatic drugs with systemic action
35. Determine the groups and haemostatic drugs with local action
36. Determine the indications for thrombin
37. Determine the indications for fibrinogen
38. Determine the indications for aprotinin
39. Determine the indications for synthetic antifibrinolytics
40. Determine the indications for calcium drugs as aggregants
41. Determine the indications for astringent drugs as hemostatic
42. Determine the indications for vasoconstrictor drugs as hemostatic
43. Determine the indications for vitamin K
44. Determine the mechanism of action of vitamin K
45. Determine the drugs used in haemolytic anemias
46. Determine the drugs used in hyperchromic anemias
47. Determine the drugs used in hypochromic anemia
48. Determine the drugs used in hypo- and aplastic anemias
49. Determine the indications for erythropoietin drugs
50. Determine the indications for iron drugs
51. Determine the effects of erythropoietin
52. Determine the drugs that stimulate leucopoiesis