

GPAT QUESTION PAPER 2012 WITH ANSWER KEY

GPAT QUESTIONS

- Which of the following respective Phase-I and Phase-II reactions are the most common drug biotransformation reactions?
(a) Oxidation and Glucuronidation (b) Reduction and Acetylation
(c) Hydrolysis and Glucuronidation (d) Oxidation and Glutathion conjugation
- Which one of the following drugs has positive inotropic and negative chronotropic action
(a) Dopamine (b) Epinephrine (c) Digoxin (d) Isoprenaline
- Which one of the following therapeutic classes has been proved clinically as a first line therapy for heart failure and has shown decreased hospitalization, improved symptoms and delayed disease progression?
(a) Cardiac glycosides (b) ACE Inhibitors (ACEIs)
(c) Renin Antagonists (d) Nitrites
- Which one of the following glucose transporters is the new drug target for the management of Type-2 diabetes mellitus?
(a) Sodium glucose linked transporter-2 (SGLT2)
(b) Glucose transporter-1 (GLUT1).
(c) Sodium glucose linked transporter-1 (SGLT1)
(d) Glucose transporter-2 (GLUT2)
- Which one of the following modes of HIV transmission carries highest relative risk of infection with single exposure?
(a) Transfusion of blood and blood products
(b) Perinatal - from mother to child
(c) Sexual contacts with infected partners
(d) Syringe sharing with drug addicts
- Which of the followings are the critical neurotransmitters playing major role in depression?
(a) Acetylcholine, Norepinephrine and Dopamine
(b) Dopamine, Norepinephrine and Serotonin
(c) Serotonin, Dopamine and γ -amino butyric acid
(d) Acetylcholine, Serotonin and γ -amino butyric acid
- A 55 years old man is under DOTS treatment for pulmonary tuberculosis for the last four months. Now, he has developed symptoms of peripheral neuritis. Which one of the followings Is the right addition to his therapy to manage peripheral neuritis?
(a) Cyanocobalamin (b) α -Lipoic acid (c) Pyridoxine (d) Prednisolone

8. What is the primary mechanism of action of local anesthetics
 - (a) Activation of ligand-gated potassium channels
 - (b) Blockade of voltage-gated sodium channels
 - (c) Stimulation of voltage-gated N-type calcium channels
 - (d) Blockade of GABA-gated chloride channels
9. Which one of the following anti-asthmatic drugs can cause convulsions and arrhythmia
 - (a) Prednisolone
 - (b) Salmeterol
 - (c) Zafirlukast
 - (d) Theophylline
10. Which one of the following anti-arrhythmic drugs acts by inhibiting potassium, sodium and calcium channels
 - (a) Quinidine
 - (b) Lignocaine
 - (c) Amiodarone
 - (d) Flecainide
11. A 48 years old woman is having the symptoms of weight gain, cold intolerance, constipation, bradycardia, puffy face, lethargy and dry skin. These symptoms are suggestive of which of the followings?
 - (a) Over use of corticosteroid
 - (b) Hypothyroidism
 - (c) Estrogen deficiency
 - (d) Over use of thyroxin sodium
12. Increased risk of hypoglycemia and weight gain is the common side effect of drugs used in the management of Type-2 diabetes mellitus. Followings are some commonly used drugs, alone or in combination, for the management of Type-2 diabetes mellitus:
 [P] : Metformin [Q]: Pioglitazone [R]: Glipizide [S] : Sitagliptin
 Choose the correct combination which is weight neutral and without risk of hypoglycemia.
 - (a) P and Q
 - (b) Q and R
 - (c) R and S
 - (d) P and S
13. Which one of the following receptors is NOT a ligand-gated ion channel receptor
 - (a) Nicotinic Receptor
 - (b) 5HT₃- Receptor
 - (c) GABA_A – Receptor
 - (d) H₂ -Receptor
14. Which one of the following classes of drugs causes side effects like dryness of mouth, tachycardia, urinary retention, constipation, blurring of vision, precipitation of glaucoma, drowsiness and impairment of cognition?
 - (a) Anti-adrenergic
 - (b) Anti-cholinergic
 - (c) Anti-serotonergic
 - (d) Anti-dopaminergic
15. Which of the following cytokines are the most important regulators in inflammation and are the targets for anti-inflammatory agents used in rheumatoid arthritis
 - (a) Tumor necrosis factor and interleukin-1.
 - (b) Acetylcholine esterase and Eicosanoids
 - (c) Leukotrienes and Isoprostanes
 - (d) Adhesion factor and Monoamine oxidase A
16. Which one of the followings is a FALSE statement for competitive antagonists
 - (a) They have an affinity for the agonist binding site on receptor
 - (b) They have no intrinsic activity
 - (c) They cause parallel rightward shift of the control dose response curve
 - (d) Maximum response of the agonist cannot be achieved in their presence by increasing the concentration of the agonist.

18. Which one of the following drugs produces significant relaxation of both venules and arterioles
 (a) Hydralazine (b) Minoxidil (c) Diazoxide (d) Sodium nitroprusside
19. Antiviral action of purine analogues is primarily related to the followings:
 [P] : Inhibition of RNA synthesis [Q] : Inhibition of DNA polymerase
 [R] : Immuno modulation [S] : Inhibition of viral penetration
 Choose the correct option:
 (a) R is correct and Q is incorrect (b) Q is correct and S is incorrect
 (c) P is correct and R is incorrect (d) S is correct and P is incorrect
20. All of the given four drugs are sympathomimetics:
 [P] : Adrenaline [Q]: Isoprenaline [R] : Phenylephrine [S] : Noradrenaline
 Choose the correct statement related to their effects on blood pressure.
 (a) P and Q increase systolic and diastolic blood pressure
 (b) Q and R increase systolic and diastolic blood pressure
 (c) R and S increase systolic blood pressure
 (d) P and S increase systolic and diastolic blood pressure
21. All of the given four drugs are neuromuscular blocking agents.
 [P] : Gallamine [Q]: Succinylcholine [R] : Vecuronium [S] : d-Tubocurarine
 Choose the correct statement about them.
 (a) P and Q are competitive neuromuscular blocking agents
 (b) Q and R are competitive neuromuscular blocking agents
 (c) R and S are non-competitive neuromuscular blocking agents
 (d) P and S are competitive neuromuscular blocking agents
22. Which one of the followings is a tyrosine kinase inhibitor indicated for a variety of malignancies
 (a) Imatinib (b) Paclitaxel
 (c) Ezetimibe (d) Mitomycin
23. Which one of the followings is the most likely positive sign of pregnancy when detected in urine
 (a) Estrogens
 (b) Progesterone
 (c) Human Chorionic Gonadotropin (HCG)
 (d) Corticotrophic Hormone
24. Followings are some opioid analgesics:
 [P] : Morphine [Q]: Pethidine [R]: Pentazocine [S] : Fentanyl
 Choose the correct order of respiratory depressant propensity of these agents.
 (a) P>Q>R>S (b) Q>P>R>S
 (c) R>P>Q>S (d) S>P>Q>R

75. Some of the following statements describe the properties of Dropping Mercury Electrode (DME) correctly:

[P] Constant renewal of electrode surface eliminates poisoning effects.

[Q] Mercury makes many metal ions easily reducible.

[R] Mercury has large hydrogen over-voltage.

[S] The electrode can get oxidised with ease.

Identify the correct combination.

(a) All statements P, Q, R and S are correct

(b) Statements P, Q and R only are correct

(c) Statements P, R and S only are correct

(d) Statements P, Q and S only are correct

76. Penicillin ring system is derived from two of the following amino acids:

[P] : Alanine and methionine

[Q] : Cysteine and valine

[R] : Glycine and cysteine

[S] : Methionine and leucine

Choose the correct pair.

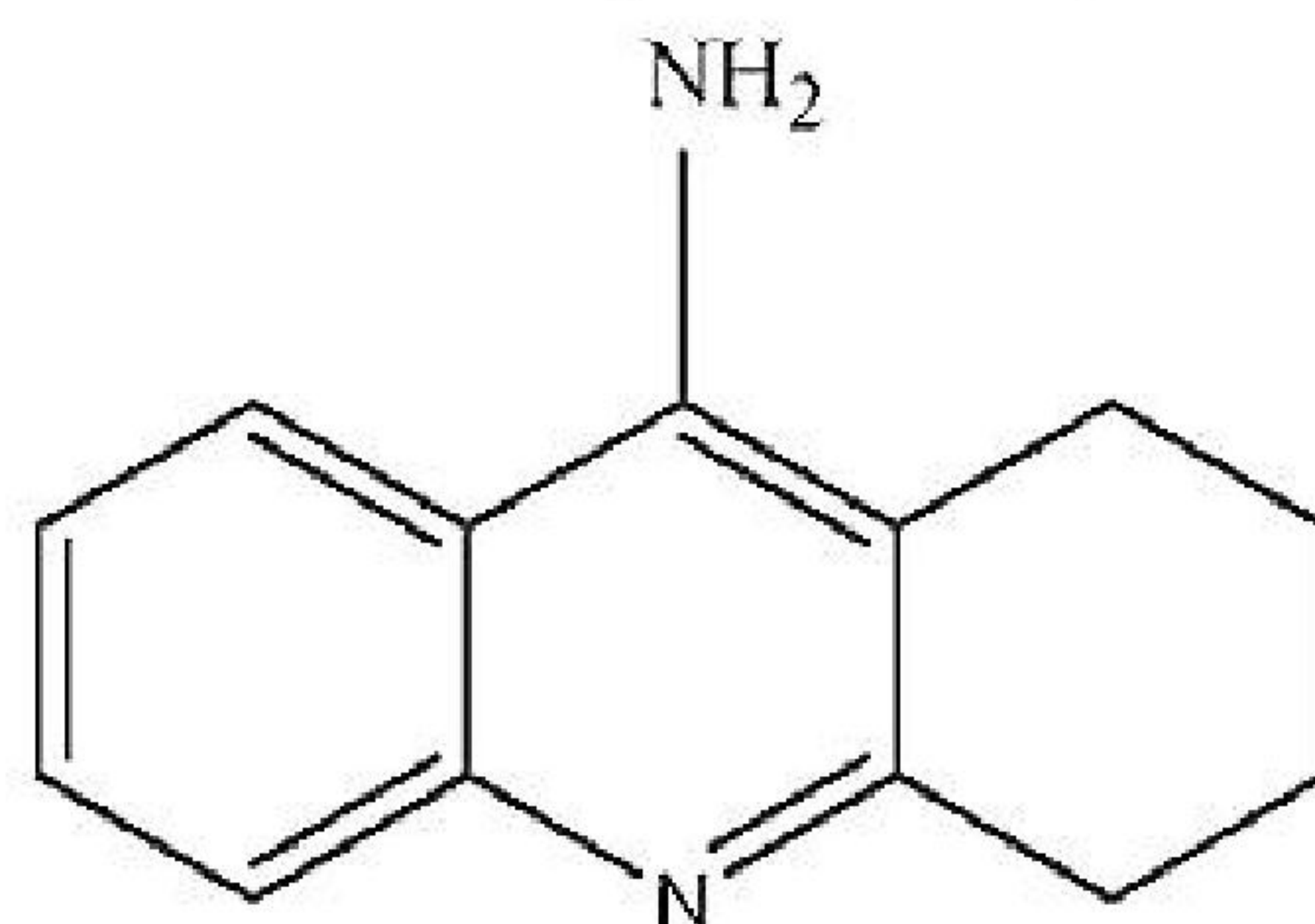
(a) P

(b) Q

(c) R

(d) S

77. For the management of which disease the given drug tacrine is used? Identify.



(a) Glaucoma

(b) Antidote for aticholinesterase poisoning

(c) As an insecticide

(d) Alzheimers disease

78. Low dose aspirin acts as anti-platelet aggregating agent by which one of the following mechanisms? Find the correct answer

(a) It acts as a suicide substrate for COX-1 enzyme present in platelets

(b) It acts as a transition state analog for COX-2 enzyme present in the platelets

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