

**PHARMACEUTICAL CHEMISTRY III (SEMESTER VIII) CBCS SYLLABUS
(MCQ TYPE QUESTION PAPER)
ANSWERS ARE IN BOLD**

Question No.	Questions	Options
1	Identify the ring present in phenytoin from the following.	Hydantoin
		Oxazolidinedione
		Succinimide
		Iminostilbene
2	Risperidone is used as----.	Antipsychotic
		Anticonvulsant
		Opioid Analgesic
		Nasal Decongestant
3	Which of the following is used as anxiolytic agent?	Oxazepam
		Selegiline
		Diethyl stilbestrol
		Risperidone
4	Which one of the following anti-depressant drugs contains secondary amine in sidechain?	Nortriptyline
		Amitriptyline
		Imipramine

		Cloimipramine
5	1-{1-[4,4-bis(4-fluorophenyl)butyl]-4-piperidyl}-2-benzimidazolinone is IUPAC name of	Pimozide
		Sulpiride
		Risperidone
		Droperidol
6	_____ is an imidazopyridine that is a highly selective agonist of the $\alpha 1$ subunit-expressing GABAA receptors.	Zolpidem
		Eszopiclone
		Zaleplon
		Indiplon
7	N substituted derivative of which of the following antidepressant drug is antipsychotic?	Amoxapine
		Amitriptyline
		Fluoxetine
		Setraline
8	Select an agent that contains a carbamate ester.	Bethanechol
		Atropine
		Parathion
		Ecothiophate
9	Identify a bronchodilator containing resorcinol	Terbutaline
		Isoproterenol

		Ritodrine
		Colterol
10	Identify the incorrect pair from the following.	Aminoamide: Dicyclomine
		Aminoalcohol ether: Benztropine
		Aminoalcohol ester: Cyclopentolate
		Aminoalcohol:Procyclidine
11	Which is a wrong statement for 2-arylimidazoline agonists?	Lipophilic substitution on the phenyl ring meta to the methylene bridge appears to be required for agonist activity at α1- and α2-receptors
		These are selective for α 1 receptor
		They all contain a one-carbon bridge between C2 of the imidazoline ring and a phenyl substituent
		Oxymetazoline, Xylometazoline, Naphazoline are examples of 2-arylimidazoline α 1-agonists

12	Introduction of α -methyl substitution in case of catecholamines leads to----	MAO Inhibition
		COMT resistance
		Loss of activity
		Increase in activity
13	Read the IUPAC name identify the drug.	Donepezil
	2,3-dihydro-5,6-dimethoxy-2-[[1-(phenylmethyl)-4-piperidinyl]methyl]-1 <i>H</i> -inden-1-one	Rivastigmine
		Tacrine
		Edrophonium
14	Which of the following is the mechanism of action for Rituximab?	TNF inhibitor
		Interleukin 1 antagonist
		Uricosuric agent
		Co-stimulation modulator
15	Identify the incorrect pair	Piroxicam: coxib
		Ibuprofen: Heteroarylpropanoic acid derivative
		Diclofenac: Fenamates
		Indomethacin: Heteroarylacetic acid derivative

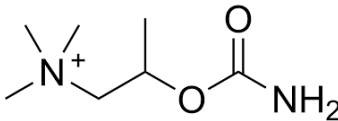
16	Which of the following is best combination for deaddiction of morphine?	A weak μ agonist and a potent antagonist
		Both potent μ agonist and antagonist
		A potent μ agonist and weak antagonist
		Both weak μ agonist and antagonist
17	What is a starting material for the synthesis of Dextropropoxyphene?	Propiophenone, formaldehyde and dimethyl amine
		Propiophenone, formaldehyde and diethyl amine
		Propiophenone, benzaldehyde and dimethyl amine
		Acetophenone, formaldehyde and dimethyl amine
18	Select aromatase inhibitor from the following	Letrozole
		Clomiphene
		mestranol

		Tamoxifen
19	Which of the following is 9- α -fluoro analog of Cortisone?	Fludrocortisone
		Flurometholone
		Flucinolone
		Betamethasone
20	Chemical name of testosterone is_____.	17β hydroxy-androstan-4-ene-3-one
		17 α hydroxy-androstan-4-ene-3-one
		17 β methyl-androstan-4-ene-3-one
		17 β hydroxy-androstan-3-ene-3-one

Q. No	Question	Anwer options
1	Clomipramine undergoes metabolism by which of the following process?	N-Demethylation
		Oxidation
		Epoxide formation
		Hydrolysis
2	Which of the drug has been developed by repalcing Indole ring with Indane ring	Ramelteon

		Eszopiclone
		Alprazolam
		Selegiline
3	The IUPAC name of Phenytoin is	5,5-diphenyl imidazoline-2,4-dione
		5,5-diphenyl imidazoline-2,5-dione
		5,5-diphenyl imidazoline-2,3-dione
		5,5-dimethyl imidazoline-2,4-dione
4	Which of the following is mode of action of Selegiline?	It is selective MAO B inhibitor
		It is nonselective MAO inhibitor
		It is selective MAO A inhibitor
		It is Irreversible MAO B inhibitor
5	In case of Phenothiazine antipsychotics which of the following structural feature causes decrease in the activity?	Alkyl group at fourth position
		Chlorine at the second position

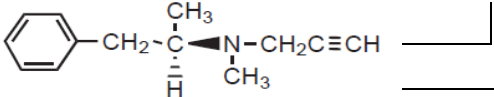
		Side chain containing 3 carbon atoms
		Protonated amino group in side chain
6	Which of the following drugs contain Azaspirodeccanedione scaffold	Buspirone
		Oxazepam
		Procyclidine
		Amantidine
7	Which of the following is correct with respect to mode of action of Lamotrigine?	Inhibits glutamate release and blocks sodium ion channel
		Inhibits glutamate release and GABA-A chloride ion channel antagonist
		Inhibits GABA-T and blocks sodium ion channel
		Inhibits GABA reuptake transporter and blocks sodium ion channel
8	Which amino acid is required for the biosynthesis of Norepinephrine?	L-Tyrosine
		D-Tyrosine

		L-Phenylalanine
		D-Phenylalanine
9	Select Acetylcholinesterase inhibitors used for the treatment of Alzheimer disease.	Rivastigmine
		Neostigmine
		Physostigmine
		Pyridostigmine
10	What is the name of this drug?	Bethanechol
		Carbachol
		Methacholine
		Acetylcholine
11	5-bromoacetyl salicylamide is used for the synthesis of which drug?	Labetalol
		Propranolol
		Terbutaline
		Phenylephrine
12	Which drug possesses lactone?	Pilocarpine
		Carbachol
		Bethanechol
		Methacholine
13	Which drug contain 4-amino-6,7-dimethoxyquinazoline ring system attached to a piperazine ring?	Prazosin
		Phentolamine

		Phenoxy-benzamine
		Tolazoline
14	Which structure is considered the pharmacophore for opioid analgesic action?	4-Phenyl piperidine
		4-Phenylpiperazine
		3-Phenylpiperidine
		3-Phenylpiperazine
15	Aspirin exhibits antipyretic, analgesic, and anti-inflammatory activities by	Covalently modifying Cyclooxygenase
		Inhibiting the enzyme Lipoxygenase
		Inhibits biosynthesis of histamine
		Antagonism of various kinins
16	When N- methyl group of morphine is replaced with an allyl group, the compound formed is	Nalorphine-morphine antagonist
		Naltrexone-morphine agonist
		Naloxone-morphine antagonist
		Nalbuphine-morphine agonist/antagonist

17	Which of the following is active metabolite of Sulfinpyrazone?	P-hydroxylation of aromatic ring
		N-dearylation
		Sulfide metabolism
		Keto reduction
18	Androstanes are steroids with	19 carbon atoms
		21 carbon atoms
		27 carbon atoms
		18 carbon atoms
19	Which of the following group of corticosteroid is responsible for decreasing mineralo corticosteroid activity and increasing gluco corticosteroid activity?	16-α-methyl
		9- α -fluro
		2- α -fluro
		11- α -fluro
20	Which of the following gives more potent metabolite after aryl-4- hydroxylation?	Tamoxifen
		Diethylstilbestrol
		Letrozol
		Megestrol

1	Donepezil contains which heterocycle as scaffold?	Piperidine
		Pyridine
		Piperazine
		Pyrazine
2	Which of the following is flexible opioid?	Meperidine
		Nalorphine
		Codeine
		Morphine
3	Replacement of CH ₂ by NH in 2-arylimidazoline series make the drug	Centrally acting α_2 agonist
		Centrally acting α_2 antagonist
		Centrally acting β_1 antagonist
		Centrally acting β_2 agonist
4	Imipramine has been developed from which of the following?	Chlorpromazine
		Alpidem
		Fluoxetine
		Sertaline
5	Which of the following substitution on piperidine N in opioids gives antagonistic effect?	N-allyl
		N-methyl
		N-phenyl
		N-ethyl
6	Which of the following drug is COX-II inhibitor?	Valdecoxib
		Piroxicam
		Nabumetone
		Mefenamic acid
7	Which one of the following has maximum of mineralo-corticoid effect	Aldosterone
		prednisone

		betamethasone
		triamcinolone
8	Which Acetylcholine esterase inhibitor is used for treatment of Alzheimer disease?	Tacrine
		Physostigmine
		Neostigmine
		Pyridostigmine
9	Which of the following drug synthesis involves reaction of 2-methoxy naphthalene with acetyl chloride in presence of AlCl ₃ ?	Naproxen
		Diclofenac
		Mefenamic acid
		Ibuprofen
10	Alprazolam is short acting sedative hypnotic because of	Presence of triazole ring (with methyl substitution) at N1
		Presence of 1,4-diazepine ring
		Presence of chlorine on phenyl ring
		Presence of 4,5 double bond in BZD scaffold
11	Given drug is used in the treatment of 	Parkinson's disease
		Alzheimer's disease
		Myasthenia gravis
		Pain
12	Select the correct category for the drug Pentazocine	κ agonist and weak μ antagonist
		μ receptor antagonist
		Partial μ receptor agonist
		Full μ receptor agonist
13	Presence of which of the following group in synthetic testosterone derivative avoid the metabolism of 17β-OH group.	17α -CH₃ group
		9α -F group
		4β -OH group

		11 β –OH group
14	Which of the following drug forms epoxide metabolite ?	Carbamazepine
		Scopolamine
		Tacrine
		Doxepine
15	Which of the following drug belongs to Indole acetic acid chemical class?	Indomethacine
		Aspirin
		Mefenamic acid
		Celecoxib
16	Butyrophenone class of antipsychotic drugs is developed from modifications on which opioid?	Meperidine
		Loperamide
		Methadone
		Levorphanol
17	Ramelteon is -----	Melatonin receptor agonist
		Melatonin receptor antagonist
		Dopamine agonist
		Dopamine antagonist
18	Which one of the following statement about acetylcholine SAR is correct	There should be not more than five atoms between the nitrogen and the terminal hydrogen atom for maximal muscarinic potency.
		Nitrogen atom can be replaced by arsenic or sulfur
		Introduction of methyl group on β carbon increases nicotinic activity
		Introduction of methyl group on α carbon increases muscarinic activity
19	Which of the following statement about Paroxetine is NOT correct?	Its quinoid metabolite is active

		It contains 2 chiral carbons
		Converting secondary amine t tertiary amine reduces affinity for SERT
		Replacing F with H reduces affinity for SERT
20	5,5-diphenyl-2,4-imidazolidinedione represents	Phenytoin
		Methotoin
		Ethotoin
		Succinimide