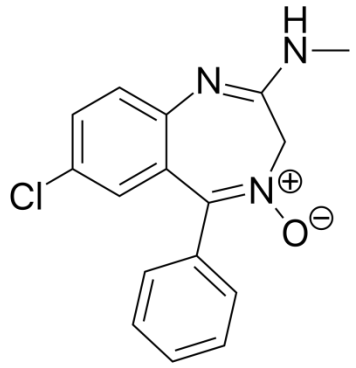
FINAL YEAR UNIVERSITY EXAMINATION 2019-2020
Final Year B.Pharm. Semester VIII (CBCS SYLLABUS)
SUBJECT-BPH_C_801_T-Pharmaceutical Chemistry III
MULTIPLE CHOICE QUESTIONS: PRACTICE QUESTION BANK

SET-I

Q. 1 Which is the correct IUPAC name for the following structure?



A] 5-chloro-2-(methylamino)-5-phenyl-3H-1,4-benzodiazepine

B] 7-chloro-2-(methylamino)-5-pyridinyl-3H-1,4-benzodiazepine-4-oxide

C] 7-chloro-2-(ethylamino)-5-phenyl-3H-1,5-benzodiazepine

D] 7-chloro-2-(methylamino)-5-phenyl-3H-1,4-benzodiazepine-4-oxide

Q. 2 Which of the following is long acting sedative hypnotic?

A] Diazepam

B] Alprazolam

C] Temazepam

D] Imipramine

Q. 3 Name of oxide derivative used as sedative hypnotic is

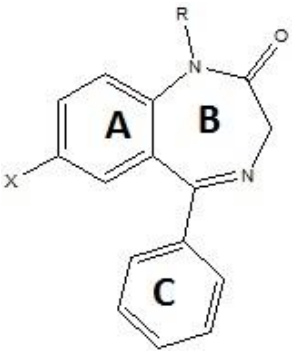
A] Diazepam

B] Chlordiazepoxide

C]Nitazepam

D] Ramelteon

Q. 4 With respect to the following general structure which is the **correct**statement ?



A] X must be electropositive substituent for optimum activity

B] X must be aromatic ring for optimum activity

C] X must be electronegative substituent for optimum activity

D] X must be H for optimum activity

Q. 5 Which is the **incorrect** statement with respect to structure given in Q. 4

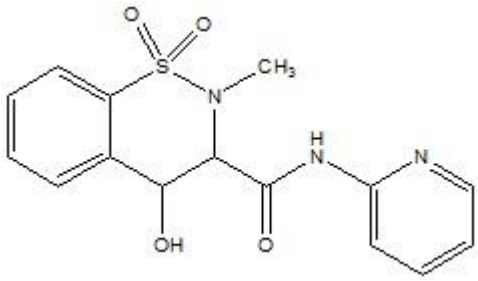
A] Ring C is ortho substituted with electron withdrawing group for optimum activity

B] Ring C when para substituted increases activity

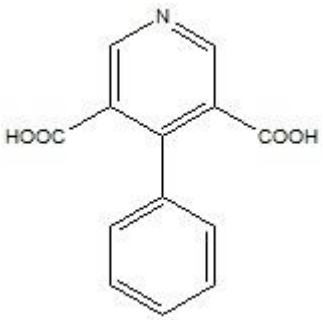
C] Ring C is diortho substituted with electron withdrawing group for optimum activity

D] Ring C when para substituted decreases activity

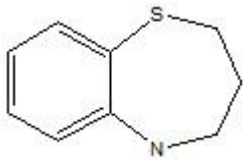
Q. 6 What is the starting material for synthesis of Piroxicam (structure given below)



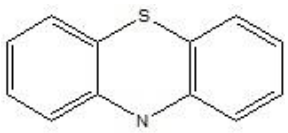
A]



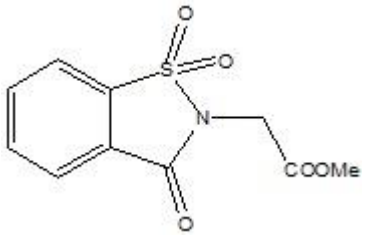
B]



C]



D]



Q. 7 Which one of the following is Cytokine inhibitor?

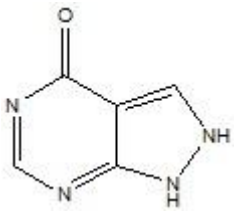
A] Abatacept

B] Fluoxetine

C] Propranolol

D]Aldosterone

Q. 8 Write the name and use for the following drug.



A] Allopurinol, treatment of Gout

B] Colterol, Adrenergic agent

C] Atropine, Cholinergic antagonist

D] Indomethacin, NSAID

Q. 9 Which of the following approach will lead to active metabolite for sulfinpyrazone?

A] N-dearylation

B] Sulfide formation

C] para hydroxylation of phenyl ring

D] S reduction

Q. 10 Anakinra is

A]costimulation modulator

B] anti-TNF alpha antibody

C] TNF-alpha blocker

D]interleukin receptor antagonist

Q. 11 Which Acetylcholine esterase inhibitor is used for treatment of Alzheimer disease?

A] Tacrine

B] Physostigmine

C] Neostigmine

D] Pyridostigmine

Q. 12 Donepezil contains which heterocycle as scaffold?

A] Pyridine

B] Piperidine

C]Piperazine

D] Pyrazine

Q. 13 Which of the following drug is an antidote for organophosphoruspoisioning?

A] Rivastigmine

B] Donepezil

C] Pralidoxime chloride

D] Tacrine

Q. 14 Which of the following drug is COX-II inhibitor?

A] Valdecoxib

B] Piroxicam

C] Nabumetone

D] Mefenemic acid

Q. 15 Which of the following NSAID is a prodrug?

A] Ibuprofen

B] Indometahcin

C]Diclofenac

D]Sulindac

Q. 16 What is side effect of carbamazepine?

A] EPS

B] loss of memory

C]aplastic anemia

D]addiction

Q. 17 Chemical class of Ibuprofen is,

A] Aryl acetic acid

B] Aryl propanoic acid

C] Indole acetic acid

D]Anthranilic acid

Q. 18 Which one of the following is example of mineralo-corticosteroid

A]betamethasone

B] prednisone

C]Aldosterone

D]triamcinolone

Q. 19 Diethyl stilbestrol is active in which of the following form?

A]cis form

B] trans form

C]meso compound

D] R form

Q. 20 Which of the following is not an example of progestin?

A] Tamoxifen

B]Megestrol

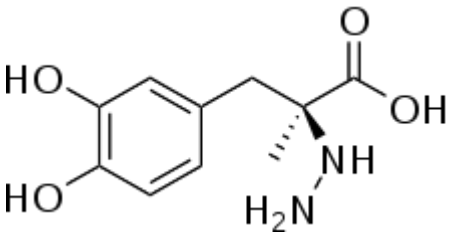
C] Norethindrone

D]Medroxypogesterone

Q. 21 Diazepam is metabolized to Nordazepam by _____and_____.

a. CYP2C19 & CYP3A4
b. CYP2C18 & CYP3A3
c. CYP2C17 & CYP3A2
d. CYP2C20 & CYP3A5

Q. 22 Which is the correct IUPAC name for the following structure?



a. (*S*)-2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid
b. (*R*)-*N*-methyl-*N*-(1-phenylpropan-2-yl)prop-1-yn-3-amine
c. (2*S*)-3-(3,4-dihydroxyphenyl)-2-hydrazino-2-methylpropanoic acid
d. (2R)-3-(3,4-dihydroxyphenyl)-3-Pyridino-2-ethylbutanoic acid

Q. 23 The effect of larger substitution on side chain N in case of phenylethanolamine is

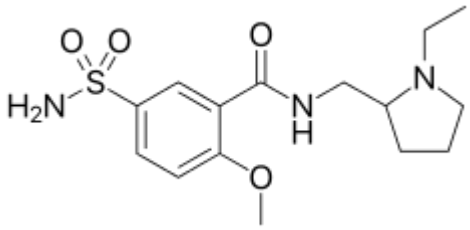
a. Increase in β2 receptor selectivity
b. Increase in α receptor activity
c. Increase in nonselectivity towards α, β receptors
d. Loss of direct sympathomimetic activity

Q. 24 α-CH3 substitutent present in the profens,

a. decreases cyclooxygenase inhibitory activity and induces toxicity of the profens.
b. decreases cyclooxygenase inhibitory activity and decreases toxicity of the profens.
c. increases cyclooxygenase inhibitory activity and increases toxicity of the profens.

d. increases cyclooxygenase inhibitory activity and reduces toxicity of the profens.

Q. 25 Which is the correct IUPAC name for the following structure?



a. 8-chloro-11-(4-methylpiperazin-1-yl)-5*H*-dibenzo[*b*,*e*][1,4]diazepine
b. *N*-[(1-ethylpyrrolidin-2-yl)methyl]-2-methoxy-5-sulfamoylbenzamide
c. 8-chloro-6-(4-methylpiperazin-1-yl)benzo[b][1,4]benzoxazepine
d. 4-[4-(4-chlorophenyl)-4-hydroxypiperidin-1-yl]-1-(4-fluorophenyl)butan-1-one

Q. 26 If additional unsaturation is introduced in the Ring A in Gluocorticoids, it results in

a. Increase in Glucocorticoid activity
b. Changes the conformation of A ring
c. Enhance anti-inflammatory effect
d. Decreases Salt retaining activity

Q. 27 What kind of change in the structure of direct acting sympathomimetic are responsible for making them indirectly acting compounds?

a) Removal of 3'-OH

b) Removal of 4'-OH

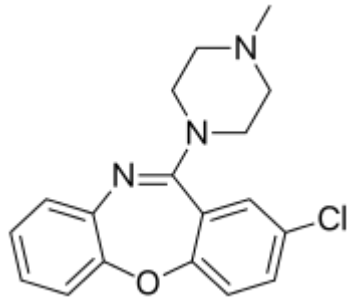
c) Removal of 3',4'- OH

d) Retention of 3'-OH and replacing 4'-OH with $-CH_2OH$

Q. 28 Because diazepam clearance is decreased in the elderly and in patients with hepatic insufficiency, a dosage _____may be warranted.

a. Enhancement
b. Reduction
c. No effect
d. Remain Constant

Q. 29 The given drug has affinity for which receptors?



a) D_2 and $5HT_2$ receptors
b) D_2 and Muscarinic receptors
c) D_1 and $5HT_2$ receptors
d) D_1 and Muscarinic receptors

Q. 30 The short elimination half-life of Zolpidem is because its aryl methyl groups is extensively_____

a) α hydroxylated
b) β hydroxylated
c) δ hydroxylated
d) θ hydroxylated

Q. 31 What interactions are involved in binding the phenol group to the target binding site in Morphine?

a. Ionic interactions
b. Hydrogen bonding interactions
c. van der Waals binding interactions
d. The group does not bind

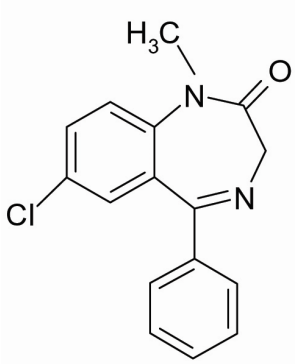
Q. 32 Major pathway of metabolism of NSAID's by

a. Conjugation
b. Hydrolysis
c. Oxidation
d. Reduction

Q. 33 Which of the following are semi-synthetic opiates?

a. Codeine
b. Oxycodone
c. Fentanyl
d. Endomorphins

Q. 34 Identify the IUPAC nomenclature of following



a. 7-chloro-1-methyl-5-phenyl-3H-1,4-benzodiazepin-2-one
b. 7-chloro-2-methylamino-5-phenyl-1,4-benzodiazepine-4-oxide
c. 7-nitro-5-phenyl-1H-benzo [e] [1,4]diazepin-2(3H)-one
d. 7-Chloro-1,3-dihydro-1-methyl-5-phenyl-1,4-benzodiazepin-2-one

Q. 35 Which one of the following is a Selective serotonin inhibitor?

a. Imipramine
b. Doxepine
c. Amoxapine
d. Escitaprolam

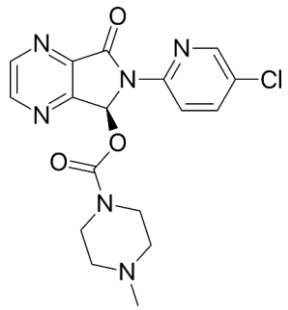
Q. 36 Which one of the following is a Azapirones anxiolytic agent.

a. Oxazepam
b. Buspirone
c. Clonazepam
d. Eszopiclone

Q. 37 Which of the following is aminoalcohol type of an anticholinergic?

a) Procyclidine b)Benztropine c) Isopropamide d) Tropicamide

Q. 38 Which is the correct IUPAC name for the following structure?



a. [(7S)-6-(5-chloropyridin-2-yl)-5-oxo-7H-pyrrolo[3,4-b]pyrazin-7-yl]4-methyl piperazine-1-carboxylate.
b. [(7S)-6-(5-chloropyridin-2-yl)-5-oxo-7H-pyrrolo[3,4-b]piperazin-7-yl]4-methylpyrazine-1-carboxylate.

c. [(7S)-6-(5-chloropyridin-2-yl)-5-oxo-7H-pyrrolo[3,4-b]piperidin-7-yl]4-methylpyrimidin-1-carboxylate.
d. [(7S)-6-(5-chloropyridin-2-yl)-5-oxo-7H-pyrrolo[3,4-b]furan-7-yl]4-methyl piperazine-1-carboxylate.

Q. 39 Which of the following is γ-vinyl GABA

a. Phenytoin
b. Vigabatrine
c. Valproic acid
d. Gabapentine

Q. 40 Naproxen is a derivative of _____

a. Arylpropionic acid
b. Arylethanoic acid
c. Arylpropionic ester
d. Arylpropionic ether

Q. 41 Which feature of acetylcholine interacts with the binding site of cholinergic receptors by hydrogen bonding?

a. The acyl methyl group
b. The ester
c. The quaternary nitrogen
d. All three N-methyl groups

SET-II

Q. 42 Identify selective α_1 antagonist containing quinazoline nucleus from the following agents.

a) Tolazoline b) Phentolamine c) Phenoxybenzamine d) Prazosin

Q. 43 Which of the following Acetylcholine esterase inhibitor does not contain quaternary ammonium group?

a) Physostigmine b) Neostigmine c) Pyridostigmined) Edrophonium

Q. 44 Which of the following is not a structural feature of opioid antagonist?

a) Presence of allyl/cyclopropylmethyl group at 17^{th} position

b) Replacement of 6 –OH with Keto group

c) Presence of 7-8 double bond

d) Substitution of 14β-OH

Q. 45 The enzyme which degrades dopamine is

a) COMT b) DOPA decarboxylase c) Aldehyde reductase d) Cyclooxygenase

Q. 46 Which one of the following statement of trimethadione is inappropriate?

a) Trimethadione is a prodrug

b) Trimethadione is used in absence seizures

c) Trimethadione belongs to imminostilbene class

d)Trimethadione is antagonist of T type of calcium channels

Q. 47 -----is purely anabolic steroid with no androgenic activity.

a) Testosterone b) Stanozolol c) 17α-Methyltestosteroned) Oxymesterone

Q. 48 An antipsychotic drug fluphenazine is given as an ester of decanoic acid

a) To increase potency b) To increase duration of action

c) To increase chemical stability d) To increase binding modes with the receptor

Q. 49 Name a NSAID associated with minimal gastric side effects

a) Diclofenac b)Flurbiprofen c) Aspirin d)Nabumetone

Q. 50 Which one of the following drug inhibit xanthine oxidase

a) Febuxostat b) Probenecid c) Colchicine d) Sulfinpyrazone

Q. 51 ----- co-administered with levodopa.

a) Selegline b) Amantadine c) Carbidopa d) Benztropine

Q. 52 Select an anticonvulsant from the following which acts by Ca^{+2} blockade.

a) Phenytoin b) Carbamazepine c) Valproric Acid d) Trimethadione

Q. 53 Identify metabolite of diazepam from the following.

a) Chlordiazepoxide b) Oxazepam c) Nitrazepam d) Clonazepam

Q. 54 Which drug is COMT resistant?

a) Isoproternol b) Salbutamol c) Colterol d)Epinephrine

Q. 55 Which of the following statement is not true with respect to Imipramine?

a) It is MAO inhibitor

b) It gets metabolized by N-dealkylation

c) It is norepinephrine and serotonin reuptake inhibitor

d) Dibenzazepine is basic scaffold present

Q. 56 Succinylcholine needs to be administered with ---------- to prevent enzymatic degradation

a) Tubocurarine b) Gallamine c) Decamethoniumd) Neostigmine

Q. 57 The IUPAC name of Buspirone is

a) 8-[4-(4-pyrimidin-2-yl piperazin-1-yl)butyl}-8-azaspiro [4.5] decane-7,9-dione

b) 8-[4-(4-pyrimidin-2-yl piperazin-1-yl)propyl}-8-azaspiro [4.5] decane-7,9-dione

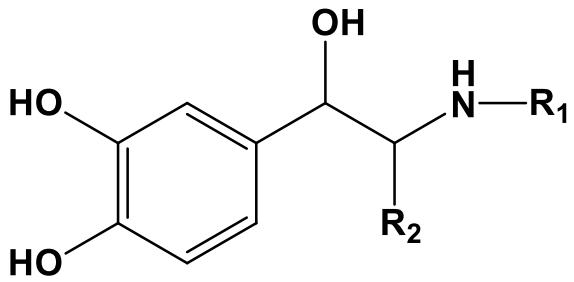
c) 8-[4-(4-pyridin-2-yl piperazin-1-yl)butyl}-8-azaspiro [4.5] decane-7,9-dione

d) 8-[4-(4-pyrimidin-2-yl piperazin-1-yl)butyl}-8-azaspiro [4.5] decane-6,8-dione

Q. 58 Which one of the following anti epileptic drug do not contain ureide in its structure

a) Phenytoin b) Trimethadione c) Ethotoin d)Lamotrigine

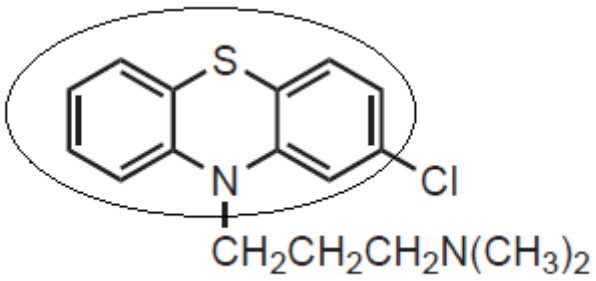
Q. 59 Refer the general structural of direct acting sympathomimetic. Converting catechol to resorcinol is responsible for--------. Select the correct answer.



a) Increased α receptor selectivity b)Nonselective nature of drug

c) Increases β_2 receptor selectivity and bioavailability d) Indirect activity

Q. 60 Identify the encircled nucleus in the following.



a) Dibenzazepine b) Benzodiazepine c) Phenothiazine d) Benzoxazine

Q. 61 In the case of thioxanthene type of an antipsychotics more active isomers have --------- configuration.

a) Cis b) Trans c) E d) R

Q. 62 Which one of the following drug shows minimal EPS

a) Pimozide b) Clozapine c) Droperidol d)Chlorpromazine

Q. 63 Codeine is----------.

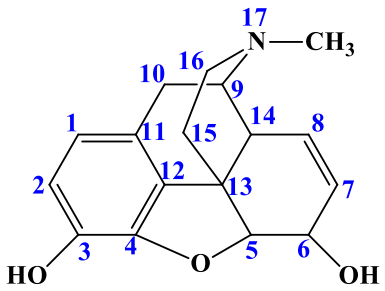
a) Methylated analog of morphine b) Acetylated analog of morphine

c) Antagonist of morphine d) Metabolite of morphine

Q. 64 The β blocker which contain arylethanolamine scaffold

a) Esmolol b) Metoprolol c) Sotalol d) Timolol

Q. 65 The given molecule has how many chiral centers?



a)3 b) 4 c) 5 d) 6

Q. 66 Which substituent in celecoxib is responsible precluding binding with COX I enzyme?

a) Sulfamoyl b) Phenyl c) Methyl d)Trifluromethyl

Q. 67 Which structural feature of morphine is missing in levorphanol?

a) Phenyl ring b) Epoxide bridge c) Piperidine ring d) 03- OH group

Q. 68 In case of Phenothiazine –Cl group at 2nd position and 3 C chain separating N10 and amino nitrogen is essential because ----------.

a) It is important for lipophilicity b) It gives dopamine like arrangement

c) To maintain potency d) It increases CNS penetration.

Q. 69 Center of acidity in case of Piroxicam can be represented by---

a) -SO_2NCH_3 group b)Enolic acid c) Pyridine ring d) –OH group

Q. 70 Identify the incorrect pair from the following.

a) Fluoxetine: Phenoxyphenylpropylamine b) Vigabtarine: γ-Vinyl GABA

c) Bethanechol: Carbamate ester d)Ritodrine: Catechol hydroxyl

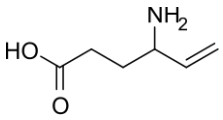
Q. 71 Find the odd one out

a) Gallamine b) Succinylcholine c) Decamethonium d) Procyclidine

Q. 72 Which of the following benzodiazepine is suitable for treatment in children & old age patients?

a) Diazepam b) Oxazepam c) Temazepam d) Nitrazepam

Q. 73 What is the mechanism of action of



a) Inhibit reuptake of GABA b) Inhibit GABA transaminase

c) Inhibit glutamate decarboxylase d)Blocks GABA receptor

Q. 74 Modification of nonrigid opioid like ---- leads to butyrophenone whereas butyrophenones are modified to--------type of antipsychotic.

Complete the statement by selecting the correct pair from the following.

a)Meperidine, Diphneylbutylpiperidine b) Methadone, Diphneylbutylpiperidine

c) Meperidine, Benzamide d) Methadone: Benzamide

Q. 75 Which conformer of acetylcholine binds with the receptor?

a) Synperiplanar b) Antiperiplanal c) Synclinal d) Anticlinal

FINAL YEAR UNIVERSITY EXAMINATION 2019-2020
Final Year B.Pharm. Semester VIII
SUBJECT-BPH_C_801_T-Pharmaceutical Chemistry III
MULTIPLE CHOICE QUESTIONS: PRACTICE QUESTION BANK

SET I

Q. No.	Correct Option
1	**D**
2	**A**
3	**B**
4	**C**
5	**B**
6	**D**
7	**A**
8	**A**
9	**C**
10	**D**
11	**A**
12	**B**
13	**C**
14	**A**
15	**D**
16	**C**
17	**B**
18	**C**
19	**B**
20	**A**
21	**A**
22	**C**
23	**A**
24	**D**
25	**B**
26	**B**
27	**C**
28	**B**
29	**A**
30	**A**
31	**B**
32	**A**
33	**B**
34	**A**
35	**D**
36	**B**
37	**A**
38	**A**
39	**B**
40	**A**
41	**B**

SET II

Question No	Correct Answer
42	Prazosin
43	Phyostigmine
44	Presence of 7-8 double bond
45	COMT
46	Trimethadione belongs to imminostilbene class
47	Stanozolol
48	To increase duration of action
49	Nabumetone
50	Febuxostat
51	Carbidopa
52	Trimethadione
53	Oxazepam
54	Salbutamol
55	It is MAO inhibitor
56	Neostigmine
57	8-[4-(4-pyrimidin-2-yl piperazin-1-yl)butyl}-8-azaspiro [4.5] decane-7,9-dione
58	Lamotrigine
59	Increases β_2 receptor selectivity and bioavailability
60	Phenothiazine
61	Cis
62	Clozapine
63	Methylated analog of morphine
64	Sotalol
65	5
66	sulfamoyl
67	Epoxide bridge
68	It gives dopamine like arrangement
69	Enolic acid
70	Ritodrine: Catechol hydroxyl
71	procyclidine
72	Oxazepam
73	Inhibit GABA transaminase
74	Meperidine, Diphneylbutylpiperidine
75	Anticlinal