



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22
Programme – Bachelor of Pharmacy
Course Name – Medicinal Chemistry I
Course Code - BP402T
(Semester IV)

Time allotted : 1 Hrs.30 Min.

Full Marks : 75

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 75=75

Choose the correct alternative from the following :

- (1) The term for replacement of hydrogen with a fluorine atom is known as
 - a) Isotope
 - b) Isostere
 - c) Isomer
 - d) Isobar
- (2) Select a false statement given below with respect to the Lipinski's Rule of five
 - a) Molecular weight of drug must be less than 500
 - b) Number of H-bond donor must be less than 5
 - c) Number of H-bond acceptor must be less than 5
 - d) Log P must be less than 5
- (3) Which of the following is NOT a phase I metabolic transformation?
 - a) Alcohol conjugation
 - b) Alkyl oxidation
 - c) Ester hydrolysis
 - d) Ketones reduction
- (4) Which of the following is used for the treatment of angina pectoris?
 - a) Atenolol
 - b) Valproic acid
 - c) Paracetamol
 - d) Griseofulvin
- (5) Which of the following drugs is used for the treatment of cardiac ischemia and congestive heart failure?
 - a) Bisoprolol
 - b) Aspirin
 - c) Paracetamol
 - d) Pantoprazole
- (6) Ephedrine functions as _____
 - a) Bronchodilator
 - b) Cardiac stimulant
 - c) Nasal decongestant
 - d) All of these
- (7) Which of the following drugs is used for the treatment of migraine?

- a) Nalidixic acid
c) Tolbutamide
- b) Tamoxifen
d) Methysergide
- (8) The parasympathetic system is also known as _____
a) Cholinergic system
b) Adrenergic system
c) Both Cholinergic system and Adrenergic system
d) None of these
- (9) Oxymetazoline is principally used as a _____
a) Diuretic
b) Antibiotic
c) Vasodilator
d) Nasal decongestant
- (10) Which of the following drugs is used as a nasal decongestant?
a) Aspirin
b) Ibuprofen
c) Propylhexedrine
d) Galantamine
- (11) Pseudoephedrine acts as a _____
a) Bronchodilator
b) Vasoconstrictor
c) Diuretic
d) Antiseptic
- (12) Which of the following is an imidazole derivative and potent competitive antagonist of both alpha 1 and alpha 2 receptor?
a) Prazosin
b) Phenoxybenzamine
c) Labetalol
d) Phentolamine
- (13) Betanecol is used for the treatment of _____
a) Alzheimer's disease
b) Parkinson's disease
c) Wilson's disease
d) Nephritis
- (14) Ecothiophate is used for the treatment of _____
a) Glaucoma
b) Hypertension
c) Gangrene
d) Yellow fever
- (15) Which of the following drugs is used to overcome paralysis caused by skeletal muscle relaxants?
a) Edrophonium
b) Griseofulvin
c) Methicillin
d) Barbiturate
- (16) Neostigmine is synthesized from _____
a) m-Chloro-N,N-dimethylaminobenzene
b) 3-dimethylaminophenone
c) 3-(4-methoxyphenyl)-1-methylhydrazine
d) None of these
- (17) Example of muscarinic antagonist from amino alcohol esters is _____
a) Glycopyrrrolate
b) Orphenadrine
c) Biperiden
d) Trihexyphenidyl
- (18) Which of the following drugs is a carbamate derivative?
a) Rivastigmine
b) Galantamine
c) Amphetamine
d) Aspirin
- (19) Which of the following is an organophosphate insecticide?
a) Parathion
b) Lysergic acid
c) Nalidixic acid
d) None of these
- (20) What is the natural source of Hyoscyamine?

- a) Panax ginseng
c) Atropa belladonna
- b) Hyoscyamus niger
d) Acorus calamus
- (21) Which of the following is a intermediate lasting barbiturate?
a) Alprazolam
c) Amobarbital
- b) Zopiclone
d) None of these
- (22) Which of the following drug is an aldehyde?
a) Triclofos sodium
c) Rivastigmine
- b) Metformin
d) Benzocaine
- (23) Which of the following is a oxazolidine dione?
a) Carbamazepine
c) Thiopental
- b) Trimethadione
d) Ergotamine
- (24) Which of the following is a Dichlorophenyl acetic acid derivative?
a) Ketamine
c) Diclofenac
- b) Piroxicam
d) Paracetamol
- (25) Ultra short acting barbiturate used as general anesthetic is _____
a) Thiopental
c) Fentanyl
- b) Ketamine
d) Midazolam
- (26) Which of the following drugs is used for the treatment of Parkinson's disease?
a) Valproic acid
c) Procyclidine
- b) Timolol
d) Cisplatin
- (27) A structure which is used as the starting point for drug design and development is termed as _____
a) Active principle
c) Lead compound
- b) Pharmacophore
d) Orphan drug
- (28) Isostere of sulphur atom is
a) -NH-
c) -Se-
- b) -O-
d) All of these
- (29) Optical isomers _____
a) Have different melting points
c) Have different solubilities in water
- b) Rotate plane-polarized light in opposite directions
d) Have different indices of refraction
- (30) pH is defined as _____
a) $-\log[H^+]$
c) $\log[H^+]$
- b) $-\ln[H^+]$
d) $\ln[OH^-]$
- (31) pKa is defined as _____
a) $-\log K_a$
c) $\log K_a$
- b) $\ln K_a$
d) None of these
- (32) Which of the following is a Phase II metabolism transformation?
a) Oxidation
c) Glucoronidation
- b) Reduction
d) Hydrolysis
- (33) Which of the following drugs is used for the treatment of nasal congestion?
a) Clonidine
c) Barbiturate
- b) Carbidopa
d) Carbamazepine

- (34) Which of the following drugs is used for the treatment of cardiomyopathy?
- | | |
|---------------|---------------|
| a) Dobutamine | b) Aspirin |
| c) Nimesulide | d) Diclofenac |
- (35) Which of the following is used to control tachycardia?
- | | |
|--------------|--------------|
| a) Nicotine | b) Esmolol |
| c) Muscarine | d) Histamine |
- (36) Labetolol is used for the treatment of _____
- | | |
|-----------------|-------------|
| a) Hypertension | b) Gout |
| c) Inflammation | d) Nphritis |
- (37) Which of the following is an antianginal drug?
- | | |
|---------------|----------------|
| a) Metoprolol | b) Paracetamol |
| c) Aspirin | d) Nimesulide |
- (38) The sympathetic system is also known as _____
- | | |
|-----------------------|----------------------|
| a) Cholinergic System | b) Adrenergic System |
| c) Both 1 and 2 | d) None of these |
- (39) Norepinephrine is also known as _____
- | | |
|------------------|---------------|
| a) Noradrenaline | b) Adrenaline |
| c) Acetylcholine | d) Dopamine |
- (40) How many subtypes of alpha adrenergic receptors are there?
- | | |
|-------|------|
| a) 2 | b) 6 |
| c) 10 | d) 5 |
- (41) Naphazoline is used as a _____
- | | |
|-----------------|--------------------|
| a) Vasodilator | b) Vasoconstrictor |
| c) Decongestant | d) None of these |
- (42) Which of the following drugs is used for the treatment of acute hypertension?
- | | |
|---------------------|----------------|
| a) Phenoxybenzamine | b) Galantamine |
| c) Cimetidine | d) Aspirin |
- (43) Which of the following can be used as an antianginal drug?
- | | |
|----------------|-----------------|
| a) Propranolol | b) Rivastigmine |
| c) Hyoscyamine | d) Digitoxin |
- (44) Terbutaline is used for the treatment of _____
- | | |
|---------------------|--------------|
| a) Bronchial asthma | b) Ulcer |
| c) Colitis | d) Nephritis |
- (45) The adrenergic beta 1 receptors are located in
- | | |
|-----------|-------------------|
| a) Kidney | b) Adipose tissue |
| c) Lungs | d) Adrenal gland |
- (46) Salbutamol is synthesized from
- | | |
|-----------------------------|----------------------------|
| a) Phenyl acetonitrile | b) 4-Hydroxy propiophenone |
| c) Methyl 2-hydroxybenzoate | d) Mesitylene derivative |
- (47) The synthesis of norepinephrine is prevented by
- | | |
|---------------------|--------------|
| a) Alpha-methyldopa | b) Ephedrine |
| c) Pilocarpine | d) Reserpine |

- (48) Which of the following drugs is used for the treatment of nicotine dependence?
- a) Lobeline
b) Penicillin
c) Diclofenac
d) Nimesulide
- (49) Clidinium is used for the treatment of _____
- a) Stomach ulcers
b) Infection
c) Sepsis
d) Goitre
- (50) Isopropamide is used for the treatment of _____
- a) Intestinal inflammation
b) Hypoxia
c) Acidity
d) Angina
- (51) Which of the following is used for the diagnosis of bronchial hyper-reactivity?
- a) Muscarine
b) Nicotine
c) Methacholine
d) Frusemide
- (52) Which of the following drugs can be used in case of paralysis caused by skeletal muscle relaxants?
- a) Neostigmine
b) Adrenaline
c) Amphetamine
d) Aspirin
- (53) Which of the following drugs is used as an antispasmodic?
- a) Aspirin
b) Valproic acid
c) Oxybutynin
d) Carbamazepine
- (54) Which of the following is used as a myotic agent?
- a) Frusemide
b) Physostigmine
c) Ampicillin
d) Methicillin
- (55) Which of the following drug is used as a myotic agent and contain both the imidazole ring and dihydrofuran ring?
- a) Pilocarpine
b) Procainamide
c) Aspirin
d) Timolol
- (56) Which of the following drugs is used as an antidote for organic phosphate poisoning?
- a) Pralidoxime
b) Metformin
c) Aspirin
d) Griseofulvin
- (57) Which of the following drugs is an used for the treatment of motion sickness?
- a) Cisplatin
b) Scopolamine
c) Benzocaine
d) Xylocaine
- (58) Which of the following is a non-depolarizing muscle relaxant?
- a) Griseofulvin
b) Cocaine
c) Morphine
d) Tubocurarine
- (59) For maximum muscarinic potency numbers of atoms between the nitrogen and terminal hydrogen are _____
- a) Less than 5
b) Less than 2
c) Greater than 5
d) None of these
- (60) Number of Acetylcholine molecules per second per molecule of cholinesterase enzyme is _____
- a) Less than 5000
b) Greater than 12000
c) Between 5000-12000
d) None of these

- (61) Which of the following drugs is used in the treatment of Alzheimer's disease?
- | | |
|-----------------|------------------|
| a) Rivastigmine | b) Biperiden |
| c) Amphetamine | d) Lysergic acid |
- (62) Which of the following alkaloids is most widely used for motion sickness?
- | | |
|-------------|------------------|
| a) Atropine | b) Hyoscyamine |
| c) Hyoscine | d) None of these |
- (63) Which of the following drugs is a quaternary amine?
- | | |
|---------------|---------------|
| a) Cisplatin | b) Diclofenac |
| c) Nimesulide | d) Ambenonium |
- (64) Which of the following drugs is used as an antidote?
- | | |
|----------------|------------------|
| a) Cisplatin | b) Celecoxib |
| c) Pralidoxime | d) None of these |
- (65) The natural source of Physostigmine is _____
- | | |
|--------------------------|------------------------|
| a) Physostigma venenosum | b) Atropa belladonna |
| c) Panax ginseng | d) Cassia angustifolia |
- (66) Which of the following drugs is an amino alcohol ester?
- | | |
|-------------------|--------------|
| a) Cyclopentolate | b) Aspirin |
| c) Gemcitabine | d) Metformin |
- (67) Carbachol is synthesized from _____
- | | |
|------------------|--------------------------|
| a) Ethyl formate | b) Ethanol |
| c) Formic acid | d) Ethylene chlorohydrin |
- (68) Which of the following is a carbamate?
- | | |
|------------------|---------------|
| a) Meprobamate | b) Vancomycin |
| c) Rosiglitazone | d) Tamsulosin |
- (69) Diazepam is synthesized from:
- | | |
|---------------------|--------------------|
| a) Chloral hydrate | b) 4-Chloroaniline |
| c) Acetic anhydride | d) Pyridine |
- (70) Antipsychotics are also known as _____
- | | |
|--------------|-----------------|
| a) Diuretics | b) Analeptics |
| c) Hypnotics | d) Neuroleptics |
- (71) Which of the following is a beta amino ketone?
- | | |
|--------------|----------------------------|
| a) Ketamine | b) Molindone hydrochloride |
| c) Triclofos | d) Morphine |
- (72) Which of the following is a hydantoin derivative?
- | | |
|---------------|------------------|
| a) Nimesulide | b) Ketorolac |
| c) Phenytoin | d) Valproic acid |
- (73) Which of the following is a N-Anthranilic acid derivative?
- | | |
|-----------------|-------------------|
| a) Hyoscyamine | b) Mefenamic acid |
| c) Rivastigmine | d) Antipyrine |
- (74) Which of the following is an Indole acetic acid derivative?
- | | |
|----------------|-----------------|
| a) Piroxicam | b) Indomethacin |
| c) Paracetamol | d) Ibuprofen |

(75) Which of the following is a Naphthalene acetic acid derivative?

a) Naproxan

b) Sulindac

c) Ibuprofen

d) Aspirin