



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 | b) Tamoxifen |
| c) Tolbutamide | d) Methysergide |

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

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

- a) Cisplatin
c) Pralidoxime
- b) Celecoxib
d) None of these
- (65) The natural source of Physostigmine is _____
a) Physostigma venenosum
c) Panax ginseng
- b) Atropa belladonna
d) Cassia angustifolia
- (66) Which of the following drugs is an amino alcohol ester?
a) Cyclopentolate
c) Gemcitabine
- b) Aspirin
d) Metformin
- (67) Carbachol is synthesized from _____
a) Ethyl formate
c) Formic acid
- b) Ethanol
d) Ethylene chlorohydrin
- (68) Which of the following is a carbamate?
a) Meprobamate
c) Rosiglitazone
- b) Vancomycin
d) Tamsulosin
- (69) Diazepam is synthesized from:
a) Chloral hydrate
c) Acetic anhydride
- b) 4-Chloroaniline
d) Pyridine
- (70) Antipsychotics are also known as _____
a) Diuretics
c) Hypnotics
- b) Analeptics
d) Neuroleptics
- (71) Which of the following is a beta amino ketone?
a) Ketamine
c) Triclofos
- b) Molindone hydrochloride
d) Morphine
- (72) Which of the following is a hydantoin derivative?
a) Nimesulide
c) Phenytoin
- b) Ketorolac
d) Valproic acid
- (73) Which of the following is a N-Anthranilic acid derivative?
a) Hyoscyamine
c) Rivastigmine
- b) Mefenamic acid
d) Antipyrine
- (74) Which of the following is a Indole acetic acid derivative?
a) Piroxicam
c) Paracetamol
- b) Indomethacin
d) Ibuprofen
- (75) Which of the following is a Naphthalene acetic acid derivative?
a) Naproxan
c) Ibuprofen
- b) Sulindac
d) Aspirin