



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Pharmacy

Course Name – Medicinal Chemistry III

Course Code - BP601T

(Semester VI)

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) Lipophilicity of Tetracycline increases by esterification of – OH group at position

a) C – 5	b) C – 10
c) C – 6	d) C – 12
- (2) Clavulanic acid has a beta lactum ring fused with

a) Clavulanic acid has a beta lactum ring fused with	b) Thiadiazole system
c) Oxazolidine system	d) d.Thiazolidine
- (3) All of the following antibiotics bind to the 50S subunit of the ribosome thereby inhibiting protein synthesis EXCEPT

a) Chloramphenicol	b) Erythromycin
c) Linezolid	d) Doxycycline
- (4) Substitution of bulky groups on the alpha carbon of side chain of Penicillin provides

a) beta lactamase resistance	b) . acid resistance
c) Penicillinase resistance	d) both (a) and (b)
- (5) An electron withdrawing substituent on the alpha carbon of side chain of Penicillin provides

a) beta lactamase resistance	b) acid resistance
c) Penicillinase resistance	d) both (a) and (b)
- (6) Which of the following is NOT a second generation cephalosporin?

a) Ceftazidime	b) Cephalothin
c) Cefotaxime	d) Cefaclor
- (7) Which of the following is considered to be bacteriostatic?

- a) Penicillin
c) Ciprofloxacin
- b) Chloramphenicol
d) Cefoxitin
- (8) Flucloxacillin
- a) Is ineffective against streptococci
c) Blocks transpeptidation and inhibits peptidoglycan synthesis
- b) Is active against enterococci and anaerobes
d) Is poorly absorbed orally
- (9) Benzyl penicillin is also known as
- a) Penicillin - G
c) Penicillin - F
- b) Penicillin - V
d) Penicillin - K.
- (10) The penicillins have a carboxylic acid group placed at
- a) C-3
c) C-6
- b) C-2
d) C-7
- (11) Demeclocycline differs from chlortetracycline only by
- a) absence of – CH₃ group on carbon 6
c) absence of – N (CH₃)₂ group on carbon 4
- b) presence of – OH group on carbon 6
d) absence of – OH group on carbon 3
- (12) Tetracycline is contraindicated with
- a) iron
c) magnesium containing drug
- b) calcium containing antacid
d) all
- (13) What is the full form of 6-APA?
- a) 6-amino penicillanic-acid
c) 6-amino penicillanic-anhydride
- b) 6-amino penicilloic-acid
d) 6-aceto penicillanic-acid
- (14) Penicillin on β -lactamase degradation produces
- a) Transpeptidase
c) Penicillinase
- b) β -Lactamase
d) peptidoglycan synthase
- (15) Chloroquine act by inhibiting following enzyme
- a) DNA and RNA polymerase
c) Dihydro folate reductase
- b) DNA gyrase
d) DNA
- (16) Clindamycin
- a) Inhibits bacterial cell wall synthesis
- b) Is often used for prophylaxis of endocarditis in patients with Valvular disease who are undergoing dental procedures
- c) Penetrates through BBB into CSF well
- d) Works well against enterococci and gram negative aerobic organisms
- (17) Ribosomal resistance occurs with
- a) Sulphonamides
c) Fluoroquinolones
- b) Penicillin
d) Macrolides
- (18) Which of the following is an ester?
- a) aspirin
c) methoxyflurane
- b) methadone
d) adrenaline
- (19) Esterification of –OH group in a drug may lead to
- a) Destabilization
c) Prodrug formation
- b) Degradation
d) Epimerization
- (20) Chloramphenicol is obtained from

- a) Streptomyces capreolus
c) Streptomyces orchidaceus
- (21) Primaquine is a derivative of
a) 4-aminoquinoline
c) 2, 4-diaminopyrimidine
- (22) The structure of biguanides contain
a) 6 nitrogen atoms
c) 3 nitrogen atoms
- (23) Sugars are linked to the central moiety of macrolides by
a) C- glycosidic bond
c) N- glycosidic bond
- (24) Modification at the primary alcoholic group on C-1 atom of Chloramphenicol results in
a) Increase in activity
c) No change in activity
- (25) Amodiaquine comes under
a) 6-Chloro-4-Amino Quinolines
c) 7-Chloro-5-Amino Quinolines
- (26) Ethambutol is used to treat
a) hypertension
c) poisoning
- (27) PAS is
a) Para-amino-sulfuric acid
c) Para-amino-salicylic acid
- (28) Artemether is used in
a) Glaucoma
c) malaria
- (29) Kaposi's Sarcoma is associated with
a) Diabetes
c) Tuberculosis
- (30) Regarding resistance to antibiotics
a) Penicillinases cannot inactivate cephalosporins
c) Mutation of aminoglycoside binding site is its main mechanism of resistance
- (31) Influenza causing virus is
a) Herpes virus
c) Retrovirus
- (32) Ciprofloxacin
a) Is a defluorinated analogue of nalidixic acid
c) Has no gram positive cover
- (33) The antiviral drug which is a thiazole analogue is
- b) Streptomyces venezulae
d) Streptomyces griseus
- b) 8-aminoquinoline
d) 8-hydroxyquinoline
- b) 5 nitrogen atoms
d) 7 nitrogen atoms
- b) O- glycosidic bond
d) S- glycosidic bond
- b) decrease in activity
d) Abolishing activity
- b) Chloro-4-Amino Quinolines
d) 6-Chloro-5-Amino Quinolines
- b) tuberculosis
d) HIV
- b) Para-amino-sorbitol
d) Para-amino-sulfonamide
- b) Tuberculosis
d) dysentery
- b) AIDS
d) Ulcer
- b) Macrolides can be inactivated by transferases
d) Tetracycline resistance is a marker for multidrug resistance
- b) Orthomyxovirus
d) Adenovirus
- b) Inhibits topoisomerases 2 and 3
d) Has bioavailability of 30%

- a) Nelfinavir
c) Saquinavir
- b) Ritonovir
d) Loviride
- (34) Which of the following is not a 4-amino quinoline
- a) Amodiaquine
c) Primaquine
- b) Mefloquine
d) Chloroquine
- (35) Zalcitabine is an analog of
- a) cytosine
c) uracil
- b) guanine
d) adenine
- (36) Major metabolite of Isoniazid is
- a) N-acetyl Nicotinamide
c) N-methyl isoniazid
- b) N-acetyl isoniazid
d) N-methyl Nicotinamide
- (37) Ciprofloxacin is which type of drug?
- a) Antifungal antibiotics
c) . Quinolines
- b) Anti-tubercular antibiotics
d) Quinolone Antibacterials
- (38) Nalidixic acid is used in
- a) urinary tract infection
c) Fungal infection
- b) Malaria
d) none
- (39) Tuberculous meningitis involves
- a) respiratory system
c) GI tract
- b) nervous system
d) none
- (40) streptomycin
- a) Bactericidal
c) Not an antibacterial
- b) Bacteriostatic
d) An antifungal
- (41) Amikacin is a
- a) semisynthetic aminoglycoside
c) natural aminoglycoside
- b) synthetic aminoglycoside
d) none
- (42) Example of HIV protease inhibitors
- a) Abacavir
c) Aciclovir
- b) Ritonavir
d) Ganciclovir
- (43) Idoxuridine is
- a) RT inhibitors
c) both
- b) DNA polymerase inhibitor
d) none
- (44) Which of the following is aryl sulfonamide derivative?
- a) Tamsulosin
c) Metaraminol
- b) Prazosin
d) None
- (45) Cycloguanil acts by
- a) 30 S ribosomal inhibition
c) 50 S ribosomal inhibition
- b) dihydrofolate reductase inhibition
d) Protein synthesis inhibition
- (46) Which sulphonamide is not used in diuretics?
- a) Tolbutamide
c) Chlorthalidone
- b) Bumetanide
d) Furesemide
- (47) Sulfonamides are metabolized by humans principally by

- a) Acetylation
c) Oxidation
- b) Deamination
d) Conjugation
- (48) Which is basic ring present in sulfomethoxazole?
a) Oxazole
c) Thiazole
- b) Isoxazole
d) None of the above
- (49) Chemically Albendazole is
a) Indole derivative
c) Quinoline derivative
- b) Benzimidazole derivative
d) Carbazole derivative
- (50) Regarding the “azole” group of antifungals
a) Fluconazole has low water solubility
c) Itraconazole undergoes renal elimination
- b) Ketoconazole may be given IV/PO
d) They work by reduction of ergosterol synthesis by inhibition of fungal cytochrome P450 enzymes
- (51) Diethylcarbamazine Citrate is which class of drug
a) Antiviral
c) Anthelmintic
- b) Antifungal
d) Sulfonamide
- (52) Albendazole contains which of the following
a) Imidazole
c) Thiazolidine
- b) Fural
d) Benzimidazol
- (53) Niridazole
a) Mono amine oxidase
c) Mono aldehyde oxidase
- b) Mono acyclic oxidase
d) none
- (54) In vivo, prontosil is converted to
a) Sulphanilamide
c) Sulphadiazine
- b) Sulphacetamide
d) Sulphathiazole
- (55) Glibenclamide belongs to the class
a) Thiazolidinediones
c) Benzoic acid derivatives
- b) Sulphonyl ureas
d) Biguanides
- (56) The chemical name of sulphadiazine is
a) N 1 -2-pyrimidinylsulphanilamide
c) N 1 -2-pyridylsulphanilamide
- b) N 1 -5-methyl-3-isooxazolylsulphanilamide
d) N 1 -acetylsulphanilamide.
- (57) Antifungal polyene macrolide that preferentially binds to fungal ergosterol which alters cellular permeability.
a) amphotericin B
c) flucytosine
- b) ketoconazole
d) griseofulvin
- (58) An azole most commonly used for topical treatment of candidiasis
a) amphotericin B
c) griseofulvin
- b) clotrimazole
d) flucytosine
- (59) What term is used to signify a preparation that appears identical to the preparation of an active drug but which has no biological activity?
a) Dummy drug
c) Placebo
- b) Peptidomimetic
d) Gazebo

- a) DNA and RNA polymerase
c) Dihydro folate reductase
- (72) The anti- malarial drug quinine contains
a) Quinoline ring
c) Isoquinoline ring
- (73) Chemically Albendazole is
a) Indole derivative
c) Quinoline derivative
- (74) What is the term used to describe the 3-dimensional space around a molecule when it is in a target binding site?
a) Stereochemical space
c) Configurational space
- (75) What is meant by a scaffold?
a) The lead compound
c) The pharmacophore
- b) DNA gyrase
d) DNA
- b) Quinclidine ring
d) Both (a) and (b)
- b) Benzimidazole derivative
d) Carbazole derivative
- b) Conformational space
d) Constitutional space
- b) The carbon skeleton of a compound
d) The core structure of a molecule that is common to a series of compounds