

Faculty of Pharmacy
B.Pharm. Semester—VI (New) Examination
MEDICINAL CHEMISTRY-I
Paper—BP601T

Time : Three Hours]

[Maximum Marks : 70]

INSTRUCTIONS TO CANDIDATES

- (1) Answer **all** questions.
- (2) Diagrams and Chemical equations should be given wherever necessary.
- (3) Discuss the reaction, mechanism wherever necessary.

1. (A) MCQ :

- (1) β -lactum ring fused to oxazolidine gives –

(A) Clavulanic acid	(B) Carbapenems
(C) Cephalosporines	(D) Sulbactams
- (2) Tetracycline is avoided during pregnancy because –

(A) Teratogenic effect	(B) Cause discoloration of teeth
(C) Cause abortion	(D) Affect bone growth of foetus
- (3) Which of the following is Antiviral Agent ?

(A) Diclofenac	(B) Methyl Salicylate
(C) Ibuprofen	(D) Amantidine
- (4) Which of the following sulphonamides is used topically ?

(A) Sulphamethoxazole	(B) Sulphadoxine
(C) Silver Sulfadiazine	(D) Dapsone
- (5) _____ is salicylic acid derivative.

(A) Praziquantel	(B) Stibophen
(C) Niclosamide	(D) None of the above
- (6) One of the following xenobiotics does not cause Nephrotoxicity.

(A) Cisplatin	(B) Kanamycin
(C) Isoniazide	(D) Streptozocin
- (7) Proguanil is a prodrug and has an active metabolite as _____.

(A) Bicycloguanil	(B) Guanil
(C) (A) and (B)	(D) Cycloguanil
- (8) _____ is having antiamoebic and antiviral action.

(A) Diloxanide	(B) Nitroimidazoles
(C) Eflornithine	(D) None of the above

- (9) Artemisinin derivatives have their activity because of ____.
- (A) Peroxide bridge (B) Endonucleoside bridge
(C) Endoperoxide bridge (D) Exoperoxide bridge

(10) Prophylaxis and treatment of influenza infection is given by ____.

- (A) Acyclovir (B) Vidarabine
(C) Amantadine (D) None of the above

10

(B) Solve the following :

(1) What is difference between Penicillin and Cephalosporin ?

(2) Write application of Neomycin.

(3) Write chemical degradation of monobactams.

(4) What is the pharmacophore ? Write in brief.

(5) Write the chemical structure of Clotrimazole and Metronidazole.

10

2. Solve the following any **two** :

(1) What are antibiotics ? Classify the antibiotics and write mechanism of action of β -lactam antibiotics.

(2) Classify the Sulphonamides and Sulfones, write SAR and mechanism of action.

(3) Classify the anti-tubercular agents, write SAR and synthesis of Isoniazid.

20

3. Solve the following— any **seven** :

(1) Write SAR of Tetracyclines.

(2) Write synthesis of chloroquine.

(3) Write about anti-tubercular antibiotics.

(4) Classify the antiviral drug and give synthesis of Acyclovir.

(5) Write the SAR of Ciprofloxacin.

(6) Classify the Anthelmintics.

(7) What is prodrug and give its application ?

(8) Classify antimalarials, write SAR of pamaquine.

(9) Write about Hansch analysis.

35