

04-06-19

Total No. of printed pages = 6

BP 402T

BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati - 781017

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--

2019

B.Pharm. 4th Semester End-Term Examination

MEDICINAL CHEMISTRY I - THEORY

New Regulation (w.e.f. 2017-2018)

Full Marks – 75

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Answer ALL questions. (20 × 1 = 20)
- (i) Most of the basic drugs bind with
- (a) Albumin
 - (b) Apha-acid glycoprotein
 - (c) Globulin
 - (d) Lipoprotein
- (ii) The chelate used in mercury poisoning is
- (a) Penicillamine
 - (b) Dimercaprol
 - (c) EDTA
 - (d) None

[Turn over

- (iii) Barbiturates are enzyme
- (a) Inducer
 - (b) Inhibitor
 - (c) Both (a) and (b)
 - (d) None of the above
- (iv) The precursor for the synthesis of adrenaline is
- (a) Tryptophan
 - (b) Histidine
 - (c) Tyrosine
 - (d) Choline
- (v) The effect of α blocker results in _____ of blood vessels.
- (a) Contraction
 - (b) Dilation
 - (c) No effect
 - (d) None of the above
- (vi) Which of the following is a Phenylpropanolamine derivative?
- (a) Ephedrine
 - (b) Amphetamine
 - (c) Dobutamine
 - (d) Tolazoline
- (vii) Tizanidine is an _____ agonist.
- (a) α_1
 - (b) α_2
 - (c) α_3
 - (d) Both (b) and (c)

- (viii) Which of the following is a β_3 agonist?
- (a) Formoterol
 - (b) Mirabegron
 - (c) Guanahenz
 - (d) Methoxamine
- (ix) Phentolamine is a _____ adrenergic antagonist.
- (a) Non-selective reversible
 - (b) Selective irreversible
 - (c) Non-selective irreversible
 - (d) Mixed acting
- (x) Which of the following chemical agent inhibits the transport of choline from cytoplasm to neuron?
- (a) Hexamethonium
 - (b) Hemicholinium
 - (c) Vesamicol
 - (d) Tubocurarine
- (xi) Parasympathomimetic agents mimic the action of
- (a) Adrenaline
 - (b) Acetylcholine
 - (c) Histamine
 - (d) Serotonin
- (xii) Pilocarpine is a _____ agent.
- (a) Directly acting
 - (b) Indirectly acting
 - (c) Cholinesterase reactivator
 - (d) Cholinergic blocking

BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017

- (xiii) Thiopental sodium is _____ acting barbiturate.
- (a) Short
 - (b) Intermediate
 - (c) Long
 - (d) Ultra-short
- (xiv) Which of the following is an alcohol derivative?
- (a) Paraldehyde
 - (b) Meprobamate
 - (c) Triclofos sodium
 - (d) Glutethimide
- (xv) Which of the following neurotransmitter's increase level causes psychosis?
- (a) Dopamine
 - (b) Serotonin
 - (c) Nor-adrenaline
 - (d) All of the above
- (xvi) Drug of choice for absence seizure is
- (a) Ethosuximide
 - (b) Phenytoin
 - (c) Phenacemide
 - (d) Sulpieride
- (xvii) Sulpieride belongs to _____ class of drugs.
- (a) Imides
 - (b) Benzamides
 - (c) Aldehyde
 - (d) Alcohol

- (xviii) Which of the following is a narcotic antagonist?
- (a) Naloxone
 - (b) Naproxen
 - (c) Nalidixic acid
 - (d) Nabumetone
- (xix) The starting compound for the synthesis of Propranolol is
- (a) P-aminophenol
 - (b) α -naphthol
 - (c) Phenol
 - (d) 1, 3-propanediol
- (xx) Which of the following β blocker has shortest half-life?
- (a) Pindolol
 - (b) Esmolol
 - (c) Timolol
 - (d) Albuterol

2. Write note on any seven : (7 × 5 = 35)

- (a) Bioisosterism
- (b) Alkaloids as cholinergic blocker
- (c) Optical and geometrical isomerism
- (d) General anesthetics
- (e) Anticonvulsants
- (f) Hydrogen bonding
- (g) Sympathomimetic agents
- (h) Biosynthesis of catecholamine
- (i) Protein binding of drugs.

3. Answer any *two* : (2 × 10 = 20)

- (a) What are analgesics? Classify narcotic and non-narcotic analgesics. Write the structure and synthesis of Mefenamic acid and Ibuprofen. (1 + 3 + 3 + 3 = 10)
- (b) Explain the Phase I and Phase II process of drug metabolism. Write the factors affecting drug metabolism. (6 + 4 = 10)
- (c) Define sedatives and hypnotics. Classify them and write the synthesis of Diazepam and Barbitol. (2 + 3 + 2.5 + 2.5 = 10)

BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati - 781017
