Total No. of printed pages = 4

Bina Chowdhury Central Library
Girijananda Chowdhury University
Hatkhowapara, Azara, Ghy-17

BP 402 T

Roll No. of candidate | | | | | | | | | | |

2023

B.Pharm. 4th Semester End-Term Examination

MEDICINAL CHEMISTRY – I

Full Marks – 75 Time – Three hours

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

1. Answer the following (MCQs) : $(20 \times 1 = 20)$

(i) Most drugs are absorbed from the gastrointestinal tract by a process of _____.

(a) Active diffusion (b) Ion-pair transport

(c) Passive diffusion (d) Both (b) and (c)

(ii) Which of the following drug undergoes metabolism by acetylation?

(a) Dapsone (b) Hydralazine

(c) Isoniazid (d) All of the above

(iii) Which of the following chemical agent/agents inhibit the uptake of choline into axon?

(a) Cocaine (b) Tricyclic antidepressants

(c) Vesamicol (d) Hemicholinium

(iv) Which of the following amino acid is the starting material for the biosynthesis of adrenaline?

(a) Tyrosine (b) Alanine

(c) Glycine (d) Tryptophan

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(v) Naphazoline contains _____ heterocyclic ring

(a) Indole (b) Imidazole

(c) Furan (d) Pyrazole

(vi) Which of the following anticholinergic drug is used for pre anaesthetic medication?

(a) Pirenzepine (b) Glycopyrrolate

(c) Oxybutynin (d) Propantheline

(vii) Which of the following is not a cardioselective (β1) blocker?

(a) Labetalol (b) Celiprolol

(c) Esmolo (d) Atenolol

(viii) Chemically Catechel is _____.

(a) 1,3 – dihydrony benzene

(b) 3,4 – dihydrony benzene

(c) 1,4 – dihydrony benzene

(d) None of the above

(ix) Condensation of malonic acid and urea leads to the formation of _____.

(a) Barbituric acid (b) Barbital

(c) Barbitone (d) None of the above

(x) Which of the following is a competitive antagonist at GABAA receptor?

(a) Bicuculline (b) Muscimol

(c) Reserpine (d) β-carboline

(xi) Which of the following increases the duration of Cl^- channel opening in GABA?

(a) Barbiturates (b) Benzodiazepines

(c) Cholinergics (d) Neuroleptics

(xii) What does COMT stands for _____.

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(a) Catechel – O – Methyl transferase

(b) Catechel – Oxy – Methyl transferase

(c) Catechoanine-Oxy methyl transferase

(d) None of the above

(xiii) Which of the following in selective an antagonitst

(a) Preycosin (b) Yohimbin

(c) Salkulamel (d) None of the above

(xiv) _____ is an example of heterocyclic class of antipsychotics.

(a) Pimozide (b) Loxapine

(c) Zonisamide (d) Both (a) and (b)

(xv) α-hydroxy benzyl alcohol is the starting material for the synthesis of

(a) Esmolol (b) Salbutamol

(c) Timolol (d) Atenolol

(xvi) Which of the following is not an ultra short acting barbiturates?

(a) Thiopental sodium (b) Methohexital sodium

(c) Thiamylal sodium (d) Amylobarbital sodium

(xvii) Which of the following doesn't contain phenanthrene nucleus?

(a) Papaverine (b) Codeine

(c) Thebaine (d) Heroin

(xviii) Which of the following drug is/are synthetic opioids?

(a) Meperidine (b) Fentanyl

(c) Tramdol (d) All of the above

(xix) Aspirin at higher dose has _____ action

(a) Anticoagulan (b) Antiplatelet

(c) Vasicoselective (d) Spasmolytic

(xx) Which of the following NSAIDs is/are arylpropionic acid class?

(a) Ibuprofen (b) Aceclofenae

(c) Diclofenac (d) Acetaminophen

2. Attempt short answers (any *seven*): (7 × 5 = 35)

(a) Write a note on SAR of β-blockers.

(b) Explain the catabolism of adrenaline & nor-adrenaline with chemical reactions involved.

(c) Classify anticholinergics with some structures.

(d) Explain the mechanism of action of some anticonvulsants.

(e) Enlist some drugs that bind to various plasma proteins.

(f) What are the stages of anaesthesia?

(g) Write a note on the uses of adrenergic drugs.

(h) Distinguish between Barbiturates and Benzodiazepines.

(i) Write the synthesis of Carbamazepine and Ibuprofen.

3. Attempt long answer (any *two*) : (2 × 10 = 20)

(a) Write the synthesis of Diazepam and methordone hydrechlonide. Give their importance and mention some side effects. (5 + 5 = 10)

(b) Explain phase II metabolism with chemical reactions. (10)

(c) Distinguish between Sympathetic and Parasympathetic divisions of ANS. Give an example of sympatholytics and parasympatholytics. (5 + 5 = 10)