



- Notes :
1. Diagrams and Chemical equation should be given wherever necessary.
 2. Discuss the reaction, mechanism wherever necessary.
 3. All questions are compulsory.

- 1. Multiple choice questions. 1x20
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- What sort of receptor is the nicotinic receptor?
 - a) G protein coupled receptor
 - b) Kinase linked receptor
 - c) Intracellular receptor
 - d) Ion channel type receptor
 - Which of the following is a natural chemical messenger for the adrenergic receptor?
 - a) Acetylcholine
 - b) Dopamine
 - c) Serotonin
 - d) Noradrenalin
 - Who is the founder of modern medicine?
 - a) Hippocrates
 - b) Clark
 - c) Charak
 - d) Henry's
 - A molecule having 3 chiral center carbon it have -----
 - a) 4 sets of diastereomers
 - b) 9 set of enantiomers
 - c) 6 sets of monomers
 - d) 9 sets of stereoisomers
 - Which of the following is not a bivalent?
 - a) CO
 - b) CS
 - c) CC
 - d) SH
 - Which of the following is not a phase II metabolic reaction?
 - a) Conjugation to alcohols
 - b) Glucuronidation
 - c) Reduction of Ketones
 - d) Methylation
 - Which of the following is not a bronchodilator?
 - a) Terbutaline
 - b) Dobutamine
 - c) Adrenaline
 - d) Isoprenaline
 - Neostigmine is synthesized from.
 - a) 3-dimethyl aminophenone
 - b) 3- dimethyl aminophenol
 - c) 3-dimethyl amino 1-methylhydrazine
 - d) None of the above
 - Which of the following NSAID's is a selective COX-2 inhibitor?
 - a) Diclofenac
 - b) Indomethacin
 - c) Celecoxib
 - d) Piroxicam
 - Which of the following opioid analgesics is a strong mu receptor agonist?
 - a) Buprenorphine
 - b) Pentazocine
 - c) Naloxone
 - d) Morphine
 - How much carbon chains are essential for activity of propranolol?
 - a) 1 carbon chain
 - b) 2 carbon chain
 - c) 3 Carbon chain
 - d) 4 carbon chain

- xii) In ethylene bridge incorporation of β - substitution leads to the reduction of.
- Nicotinic activity
 - Muscarinic activity
 - No change
 - All of these
- xiii) Drug used as insecticide in agriculture.
- Neostigmine
 - Tubocurarine
 - Carbachol
 - Parathion
- xiv) Which of the following isn't a solanaceous alkaloid?
- Scopolamine
 - Homatropine
 - Cyclopentolate
 - Ipratropium bromide
- xv) 2,4,6 trioxo hexahydro pyrimidine is IUPAC name of.
- Benzodiazepine
 - Methabarbitalone
 - Tropane
 - Barbituric acid
- xvi) Sedation action of barbiturates is due to substituents at C-5 is due to.
- High lipophilicity of group at C-5
 - Steric effect
 - Metal complex formation
 - Isosteric effect at C-5
- xvii) ----- is example of dihydro-indoles derivatives.
- Haloperidol
 - Chlorpromazine
 - Sulpiride
 - Molindone HCl
- xviii) Anticonvulsant drugs inhibit seizures by potentiating of synaptic inhibition through an action on the ----- receptors.
- 5-HT
 - GABA
 - Cholinergic
 - Adrenergic
- xix) Which of the following intravenous anesthetic has antiemetic action?
- Thiopental
 - Fentanyl
 - Propofol
 - Ketamine
- xx) Methoxyflurane is employed for.
- Cardiac disease
 - Diabetes
 - Analgesic
 - Hepatitis

2. Solve any two.

10x2

- Define Sympatholytics. Discuss SAR of β -adrenergic blockers with examples.
- Describe in detail various physicochemical properties involved in drug action.
- Define sedative and hypnotics. Discuss SAR, MOA and various examples of benzodiazepines.

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3. Solve any seven.

5x7

- Explain factors affecting drug metabolism.
- Write down the synthesis and therapeutic uses of salbutamol and phenylephrine.
- Give biosynthesis and catabolism of acetylcholine.
- Discuss the SAR of cholinolytics.
- Write a short note on ring analogues of phenothiazines.
- Write structure, IUPAC name, MOA and uses of Phenytoin.
- Write a note on ketamine as a general anaesthetic.
- Write a short note on narcotic antagonist.
- Define NSAIDs. Write about selective cox-2 inhibitors.

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