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341454(41)

B Pharmacy (Fourth Semester) Examination
Nov.-Dec. 2019

(PCI Scheme)

(Pharmacy Branch)

PHARMACOLOGY - I

THEORY (BP404T)

Time Allowed : Three hours

Maximum Marks : 75

Note : *All sections are necessary. Marks are indicated with questions.*

Section - A
(Multiple Choice Questions)

Note : *Answer all the following questions. All question carry 01 mark each.*

1. Choose the correct answer : **20×1=20**

(i) Most drugs and metabolites are excreted by :

(a) Kidney

(b) Bile

(c) Lungs

(d) Perspiration, saliva and tears

(ii) The rate of drug absorption is greater in :

(a) Small intestine

(b) Large intestine

(c) Stomach

(d) Rectum

(iii) A drug that binds to a cell receptor and causes a response is called .....

(a) Antagonist

(b) Receptor blocker

(c) Agonist

(d) All the above

(iv) The duration of action of a drug is dependent of its :

(a) Plasma & Tissue binding

(b) Metabolism

(c) Tubular filtration and secretion

(d) All the above

(v) Acetylcholine and atropine action on the muscarinic receptor is a classical example of :

(a) Competitive antagonism

(b) Non-competitive antagonism

(c) Non-equilibrium antagonism

(d) Chemical antagonism

(vi) Biological half-life is calculated as :

(a) $t^{1/2} = 0 \cdot 693 \times CL/Vd$

(b) $t^{1/2} = 0 \cdot 693 \times k/\ln 2$

(c) $t^{1/2} = 0 \cdot 693 \times Vd/CL$

(d) $t^{1/2} = 0 \cdot 693 \times \ln 2/K$

(vii) Factors which can effect the absorption of drug is :

(a) Dissolution rate

(b) Particle size

(c) Lipid solubility

(d) All of the above

(viii) Idiosyncrasy reaction of a drug is :

(a) A type of hypersensitivity reaction

(b) A type of drug antagonism

(c) Unpredictable, inherent, qualitatively abnormal reaction of a drug

(d) quantitatively exaggerated response

(ix) The therapeutic index of a drug is a measure of its :

(a) Safety

(b) Potency

(c) Efficacy

(d) Dose variability

(x) Bioavailability of a drug is :

(a) The % of drug that is ionized from a formulation

(b) The % of drug released from a formulation that becomes available for biological effect

(c) The net amount of actual therapeutic agent present in the formulation

(d) The dose of a drug by which 50% animals show sign of toxicity

(xi) Which of the following is true for placebos :

(a) Placebo is a dummy medication

(b) Placebo is a inert material added to drug for making tablets

(c) Placebos produce pharmacological effect

(d) All patients respond to Placebos

(xii) Synthesis of norepinephrine occurs from :

(a) Tyramine

(b) Tryptophan

(c) Tyosine

(d) Tetracaine

(xiii) Probenecid :

(a) Increases excretion of uric acid by blocking its tubular reabsorption

(b) Is used in combination with salicylates

(c) Is useful in gouty patients with nephrolithiasis

(d) Reduces the plasma concentrations of rifampicin

(xiv) Botulinium toxin causes muscle palsy by blocking :

(a) Nerve action potential

(b) Acetylcholine release

(c) Permeability to sodium and potassium

(d) Muscle action potential

(xv) The parkinsonism Levodopa exerts following effect except :

(a) Improves tremor

(b) Improves akinesia

(c) Improves muscle power

(d) Improves dystonia

(xvi) Naloxone and naltrexone are :

(a) Opoid agonists

(b) Opoid agonists/antagonist

(c) Opoid antagonists

(d) None of the above

(xvii) Ketamine, a general anaesthetic agent can be administered by :

(a) Intravenous route

(b) Intramuscular route

(c) Intravenous or intramuscular route

(d) None of the above

viii) CNS stimulants agents belong to :

(a) Respiratory stimulant

(b) Psychomotor stimulant

(c) Psychomimetic agents

(d) All the above

(xix) Zolpidem is used as :

(a) Anticonvulsant drug

(b) Anti-anxiety drug

(c) Sedative and hypnotic drug

(d) Myorelaxant drug

(xx) Oswald Schmiedeber is known as :

(a) Father of medicine

(b) Father of pharmacognosy

(c) Father of Experimental medicine

(d) Father of Pharmacology

Section - B

(Long Answer Type Question) **2×10=20**

Note : *Attempt any two questions. Each question carry 10 marks.*

2. Explain clinical evaluation of new drugs.

3. Classify sympathomimetic drugs? Write pharmacological action of adrenaline on different receptors.

4. Define epilepsy. Classify antiepileptic drugs write pharmacological action of any one of them.

Section - C

(Short Answer Type Question) **7×5=35**

Note : *Attempt any Seven questions. Each question carry 5 marks.*

5. What do you mean by competitive and non-competitive antagonists? Explain with examples.

6. Write a note on G-Protein coupled receptors.

7. Discuss factors modifying drug action.

8. Describe neurohumoral transmission in the CNS.

9. Write difference between local and general anaesthesia.

10. Classify drug used in Parkinson's disease. Write pharmacology of levodopa.

11. Mention the importance of dopamine receptor.

12. Write mechanism of action of barbiturate and tubocurarine.

13. Explain CNS stimulants with examples.