**PHA 308**

**NEUROPHARMACOLOGY**

**Mock test**

**Fill in the gaps with the most appropriate answer(s)**

1. The two barrier systems in the brain are blood brain barrier and blood cerebrospinal fluid barrier
2. Neurotransmission processes chemical and electrical processes
3. Glutamate N-methyl-D-aspartate receptor (NMDA) and GABAAreceptor are examples of ionotropic receptors.
4. The inhibitory neurotransmitters γ amino butyric acid (GABA) and glycine opens chloride ion (Clˉ) and potassium ion channels, resulting in hyperpolarization
5. The neurotransmitter which causes psychosis in excess and Alzheimer’s disease when lacking is acetylcholine
6. The neurotransmitter which causes psychosis in excess and Parkinson’s disease when lacking is dopamine
7. Tyrosine-derived neurotransmitters are dopamine and norepinephrine
8. A disease characterized by an imbalance between dopaminergic and cholinergic system in the brain is psychosis
9. Sedative is a drug that reduces excitement and produces calming effect without inducing sleep, while hypnotics is a drug that induces and/or maintains sleep.
10. Pharmacological actions of benzodiazepines include sedation, anxiolytics, anticonvulsant, hypnotics, skeletal muscle relaxation
11. The monoamine theory of depression states that depression is caused by a functional deficit of the monoamine transmitters, noradrenaline and 5-hydroxytryptamine (5-HT) at certain sites in the brain, while mania results from a functional excess.

**Indicate “TRUE/T” or “FALSE/F” in front of each statement contained in letter A-D**

1. Centrally acting drugs act via the following broad mechanisms
2. Transmitter-specific action TRUE
3. Neuron-specific action TRUE
4. Signal-specific action TRUE
5. All of the above TRUE
6. These targets is/are of significance in the treatment of depression
7. Selective serotonin reuptake inhibitors TRUE
8. Serotonin-noradrenaline reuptake inhibitors TRUE
9. NMDA receptor antagonists FALSE
10. Calcium channel blockers FALSE
11. Match the following antidepressants with their respective groups
12. Tricyclic antidepressant e.g. amitriptyline TRUE
13. Irreversible monoamine oxidase inhibitor e.g. mianserin FALSE
14. Monoamine receptor antagonist e.g. phenelzine FALSE
15. Tricyclic antidepressant e.g. imipramine TRUE
16. The differences between brain and peripheral capillary bed includes:
17. Brain capillaries have tight junctions while peripheral capillaries have fenestrated junctions TRUE
18. Brain capillaries have fenestrated junctions while peripheral capillaries have tight junctions FALSE
19. Brain capillaries have fewer mitochondria than peripheral capillaries FALSE
20. Brain capillaries have more mitochondria than peripheral capillaries TRUE