

**Avinashilingam Institute For Home Science and Higher education for Women  
(Deemed to be University) Coimbatore- 641043**

**Class: I PG  
Major : Biochemistry**

**Max Marks : 60  
Time : 3 hours**

**17MBCC04 Pharmaceutical and Hormonal Biochemistry**

**PART - A**

**10X ½ =5**

**Choose the correct answer**

1. The main mechanism of most drugs absorption in GI tract is:  
a) Active transport (carrier-mediated diffusion)  
b) Filtration (aqueous diffusion)  
c) Endocytosis and exocytosis  
d) Passive diffusion (lipid diffusion)
2. Pick out the appropriate alimentary route of administration when passage of drugs through liver is minimized:  
a) Oral                      b) Transdermal                      c) Rectal                      d) Intraduodenal
3. What term is used to describe a more gradual decrease in responsiveness to a drug, taking days or weeks to develop?  
a) Refractoriness      b) Cumulative effect      c) Tolerance      d) Tachyphylaxis
4. What is the type of drug-to-drug interaction which is connected with processes of absorption, biotransformation, distribution and excretion?  
a) Pharmacodynamic interaction  
b) Physical and chemical interaction  
c) Pharmaceutical interaction  
d) Pharmacokinetic interaction
5. Name the second messenger of G-protein-coupled (metabotropic) receptor:  
a) Adenylyl cyclase      b) Sodium ions      c) Phospholipase C      d) cAMP
6. Which substance changes the activity of an effector element but doesn't belong to second messengers?  
a) cAMP                      b) cGMP                      c) G-protein                      d) Calcium ion
7. The first hormone isolated (1902) was  
a) thyroxine                      b) vasopressin                      c) secretin                      d) adrenaline
8. Oxytocin stimulates the contraction of  
a) lung                      b) Ovary                      c) Heart                      d) Uterus
9. Islets of Langerhans are found in  
a) Liver                      b) Spleen                      c) Pancreas                      d) Pituitary
10. Testosterone is secreted by  
a) Leydig cells      b) Sertoli cells      c) Histocyte      d) Primary spermatocyte

**PART – B**

**5 X 4 =20**

**Answer all questions**

**Answer should not exceed 200 words one page**

11. A). Brief on nomenclature of drugs.  
(Or)  
B). What are the sources of drugs?
12. A). Give an account on chloroquine.  
(Or)  
B). Illustrate about the mechanism of action of sulfonamide.
13. A). Write a role of cAMP as second messenger.  
(Or)  
B). Discuss the mechanism of action of group I hormones.
14. A). Describe the biosynthesis of hormones of ovary.  
(Or)  
B). Write a chemical nature of hormones synthesized from adrenal medulla.
15. A). Discuss the Chemistry of hormones.  
(Or)  
B). Write a note on adrenal medulla.

**PART – C**

**5 X 7 =35**

**Answer all questions**

**Answer should not exceed 600 words or three pages**

16. A). Describe the detoxifications of xenobiotics.  
(Or)  
B). Elucidate the various routes of drug administration.
17. A). Elaborately discuss mechanism action of antibiotics.  
(Or)  
B). Explain the mechanism of toxicity.
18. A). Illustrate about the regulation of hormone action.  
(Or)  
B). Describe the classification of hormones.
19. A). Elucidate the biochemical actions and disorders of the hormones of thyroid glands.  
(Or)  
B). Write a detail note on adrenal cortex.
20. A). Enumerate the chemistry, Biosynthesis and function of the hormones of pituitary gland.  
(Or)  
B). Discuss the biochemical actions of hypothalamus hormones.

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