Formative Assessment Department of Pharmacology General pharmacology

MCQS: Date: 01-12-20

Encircle the correct option.

- 1. Drugs with high plasma protein binding have;
 - a) Longer duration of action
 - b) Less drug interactions
 - c) Low volume of distribution
 - d) Rapid rate of excretion.
 - e) Rapid rate of metabolism

- 2. When two different chemicals act on two different receptors and their response is opposite to each other on the same cell, this effect is called as:
 - a) Physiological antagonism
 - b) Chemical antagonism
 - c) Reversible antagonism
 - d) Competitive antagonism
 - e) Non-competitive antagonism

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4.	Which of the	following typ	es of drug n	netabolizing	enzymes are	inducible:

- a) Microsomal enzymes
- b) Non-microsomal enzymes
- c) Tyrosine kinases
- d) Phospholipase C

I

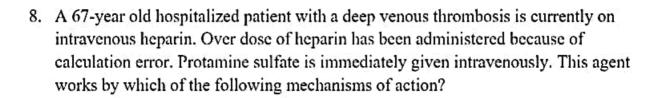
5.	A 31-year old man, with bronchial asthma, is brought to the emergency department
	complaining of severe dyspnea. Immediate medication should be administered by
	which of the following routes?

- a) Inhalational
- b) Subcutaneous
- c) Sublingual
- d) Topical

6.	Which o	of the	following	o is 1	nhase	11	drug metabo	lizing reaction?	,
	*******	,, ,,,,	TOTAL TO ALL	- A	,,,,,,,,,	••	or the mineral	memb reaction.	

- a) Acetylation
- b) Hydrolysis
- c) Oxidation
- d) Reduction

 7. A drug that binds to a receptor and produces a to the endogenous ligand is known as: a) Agonist b) Antagonist c) Functional antagonist d) Partial agonist 	a biological response that mimics the response



- a) Agonist
- b) Chemical antagonism
- c) Functional agonism
- d) Partial agonism
- e) Partial antagonism

A 15-year old boy who has diabetes and is insulin dependent is brought to the emergency department after collapsing at a baseball game. His blood sugar is 463 mg/dL. Which of the following routes of administration would be the most efficacious for medications to bring the
blood sugar down?

B

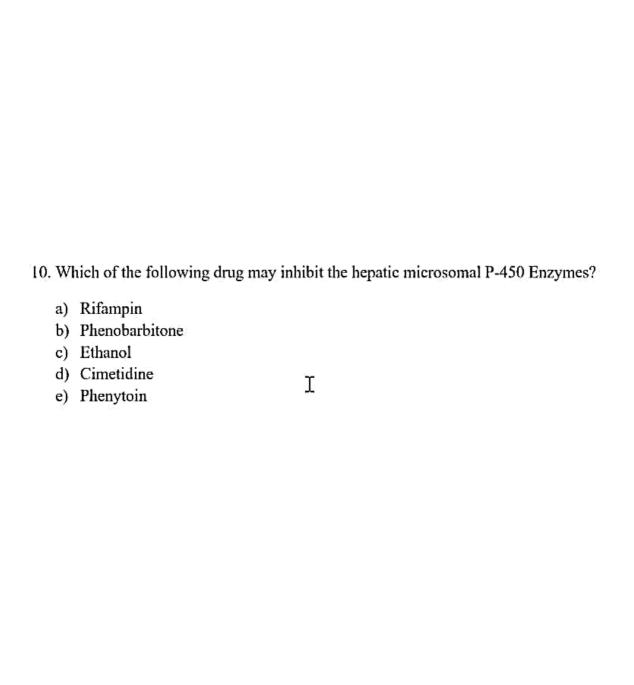
a) Intramuscular

b) Intravenous

c) Oral

d) Subcutaneous

e) Sublingual



	fraction of administered dose of a drug that reaches systemic circulation in an hanged form is called?
	First pass effect
c)	Clearance I Bioavailability
10.00	Elimination
e)	Zero order kinetics

12. The process by which the amount of drug is metabolised before reaching systemic circulation
 a) Bioavailability b) First pass effect I c) First order kinetics
d) Elimination e) Biotransformation.

	elimination kinetics in which the rate of elimination of drug is independent of its plasma
conce	entration is called?
a)	Clearance
b)	First order kineties
	First pass effect Therepout is window
(d)	Therapeutic window Zero order kinetics

14. Drugs which undergo high degree of first pass effect in liver

- a) Have low oral bioavailability
- b) Are excreted primarily in bile
- c) Have high oral bioavailability
- d) Are excreted unchanged

15. WI	hich of the followin	ng routes of drug admini	stration bypasses 50	percent first pass
	ect?			
a)	Oral			
b)	Sublingual			
c)	Rectal			
d)	Topical			
		I		

16. The passage of drug molecules from a region of high drug concentration to a region
of low drug concentration is known as
a) Active transport
b) Bioavailability
c) Passive transport
d) Simple diffusion

17. The loading dose (DL) of a drug is usually based on the

- a) Total body clearance of the drug
- b) Percentage of drug bound to plasma proteins
- c) Fraction of drug excreted unchanged in the urine
- d) Apparent volume of distribution (Vd) and desired drug concentration in plasma
- e) Area under the plasma drug concentration versus time curve (AUC)

18. Which of the following characteristic of drug is held responsible f	or redistribution
in the body?	

- a) Highly plasma protein bound drugs
- b) Depot preparations
- c) Poorly lipid soluble drugs
- d) Highly lipid soluble drugs

19.	Which of	the fo	llowing	statement i	s correct	related t	o weakly	acidic dru	1007
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- a) Are bound primarily to alpha-1 acid glycoprotein in plasma
- b) Are excreted faster in acidic urine
- c) Are highly ionized in the gastric juice
- d) Does not bind to plasma proteins

20. Which of the following statement best describes a pro-drug?

- a) Active drug which is converted into more active metabolite
- b) Inactive compound used for research purpose
- c) An inactive drug that is transformed in the body to an active metabolite
- d) A drug that is stored in body tissues and is then gradually released in the circulation

21. Induction of drug metabolizing enzymes involves

- a) Decease synthesis of enzyme protein
- b) Expression of enzyme molecules on the of hepatocytes
- c) Enhanced transport of substrate molecules into hepatocytes
- d) Increased synthesis of enzyme protein

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77	The elimination	kinetics in	which	half-life	remains of	constant is	called?
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- a) Clearance
- b) First order kinetics
- c) First pass effect
- d) Therapeutic window
- e) Zero order kinetics

23	Δn	atient is given 800mg of a drug intravenously, after	r 30 minutes plasma		
23.	 A patient is given 800mg of a drug intravenously, after 30 minutes plasma concentration of drug is measured 40mg. What would be the volume of distributio 				
		this drug?			
		20L			
	b)	30L			
	c)	35L			
	d)	40L			
			I		

24. Hal	24. Half-life of a drug is known to be 2 hours; after how much time steady state					
con	concentration would be achieved?					
a)	15 hours					
b)	20 hours					
c)	6 hours					
d)	10 hours					
	₽					

	diseases in which the expected number of patients is
small is known as;	
a) Pro drug	
b) Teratogenic drug	4
c) Placebo drug	
d) Orphan drug	

1. Enumerate two disadvantages of oral route of drug administration				
2. What is drug absorption? Enumerate the 2 factors affecting it.				
3. Define the following terms with suitable examples				
i) Agonist ii) Partial agonist				
4. What are the various types of drug antagonism. Give at least one example for each type 5. What is hepatic enzyme induction and list two drugs that are known to cause it.				
2. What is negative only the induction and his two true true the winter cause its				

4.	What are th	ne various	types of	f drug <u>antagonism.</u> (Give at lea	ast one examp	le for ea	ch type
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- 5. What is hepatic enzyme induction and list two drugs that are known to <u>cause it</u>.
- 6. Enlist two the factors affecting volume of distribution of a drug

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7.: Define the following terms:

- I. Bioavailability
- II. First Pass effect