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BP 402 T

BINA CHOWDHURY CENTRAL LIBRAR (SIMT & RIPS) AZERE Hatkinggapara, Grayahat -785017

Roll No. of candidate	4.9				

2020

B.Pharm. 4th Semester End-Term Examination

MEDICINAL CHEMISTRY — I

Full Marks - 75

Time - Three hours

					indicate full marks
			for t	he quest	ions.
1.	Ans	wer d	all the questions:		$(20 \times 1 = 20$
	(i)	The	main target site for bioti	ransform	ation is
		(a)	Kidney	(b)	Liver
		(c)	Lung	(d)	Spleen
34.7	(ii)	Pha	se I reaction is also know	n as —	reaction
		(a)	Synthetic	(b)	Non synthetic
		(c)	Semi-synthetic	(d)	None of the above
	(iii)	CYI	P450 is ———— enzym	e.	
		(a)	Reductive	(b)	Oxidative
		(c)	Hydrolytic	(d)	None of the above
	(iv)	Din	nercaprol is ———— lig	gand	
		(a)	Tridentate	(b)	Bidentate
	Ť,	(c)	Hexadentate	(d)	Unidentate
	(v)	Cho	lic acid undergoes followi	ng Phas	e II reaction
		(a)	Methylation	(b)	Acetylation
		(c)	Sulfate conjugation	(d)	Glutathione Conjugation

(11)	nei	ly tolli is all elizy me		
((a)	Inhibitor	(b)	Inducer
((c)	Both (a) and (b)	(d)	None of the above
(vii)	The	active metabolite of diazepar	m is	
((a)	Temazepam	(b)	Nor diazepam
((c)	Dihydro diazepam	(d)	Nitrazepam
(viii) -	-	inhibits phenytoin me	etabo	lism.
((a)	Chloramphenicol	(b)	Carbamazepine
((c)	Warfarin	(d)	Ethambutol
(ix)	Whic	ch of the following is a propie	onic a	acid derivative?
((a)	Nabumetone	(b)	Phenylbutazone
((c)	Ibuprofen	(d)	Diclofenac
(x)	Chlo	rpromazine has ———	side o	chain.
	(a)	Aliphatic	(b)	Piperidine
	(c)	Piperazine	(d)	Pyrazine
(xi)	The	starting compound for aceta	mino	phen is
	(a)	p-aminophenol	(b)	Toluene
	(c)	Acetanilide	(d)	Phenol
(xii)	Whi	ch of the following antipsych	otic a	agent has piperidine side chain?
	(a)	Trifluoperazine	(b)	Fluphenazine
	(c)	Thioridazine	(d)	Triethylperazine
(xiii)	Drug	g of choice for absence seizur	e is -	
	(a)	Phenytoin	(b)	Paramethadione
	(c)	Valproate	(d)	Diazepam
(xiv)	Whi	ch of the following is a starti	ng m	aterial for synthesis of Adrenaline
	(a)	Tryptophan	(b)	Tyrosine
- 1	(c)	Tyramine	(d)	Tolazoline
(xv)	β_3 re	eceptor is mainly found in -	1	
	(a)	Heart	(b)	Bronchial muscle
	(c)	Adipose tissue	(d)	Blood vessels
(xvi)	Whi	ch of the following is a select	ive o	agonist?
	(a)	Naphazoline	(b)	Oxymetazoline
			ET ANNE	
	(c)	Both (a) and (b)	(d)	only (b)

(xvii)) —	is the starting i	nater	rial for the synthesis of procyclidine				
	hyd	rochloride.		BINA CHOWDHURY CENTRAL LIBRA				
	(a)	Benzophenone	(b)	Acetophenone (CHMT & PIPS)				
	(c)	1,5-diketo ester	(d)	1,5-dibromopentane wahat 714/017				
(xvii	i) Ke	tamine hydrochloride is —		— acting barbiturates.				
	(a)	Short	(b)	Intermediate				
	(c)	Long	(d)	Ultra short				
(xix)	Whi	ich of the following β blocke	r has	s maximum local anesthetic property?				
	(a)	Propanolol	(b)	Pindolol				
	(c)	Bisoprolol	(d)	Betazolol				
(xx)		is not a choline ester	۲.					
	(a)	Carbachol	(b)	Metacholine				
	(c)	·Pilocarpine	(d)	Acetylcholine				

Ansv	wer :	any seven questions :		$(7 \times 5 = 35)$				
(a)	Wri		g of d	rugs along with various drugs bound to				
(b)	Define and classify cholinergic agent with suitable examples. Describe the structural activity relationship of muscarinic agonist. $(2 + 3 = 5)$							
(c)	Discuss the structural activity relationship of sympathomimetic drugs. Give the synthesis and mechanism of action of adrenaline. $(3 + 2 = 5)$							
(d)	- a 1 100 1 1 1 1 - a thatian and general anosthotics							
(e)	How do hypnotics differ from sedatives? Explain the structural activity relationship of Barbiturates as sedatives and hypnotics. $(1 + 4 = 5)$							
(f)	Discuss about optical isomerism of drug molecule and biological action. What is Easson — Stedman Theory? $(3+2=5)$							
(g)	What is bioisosterism? Classify bioisosterism with suitable examples. Discuss the application of bioisosterism in drug design. $(1+2+2=5)$							
(h)	Write a brief notes on anticonvulsants.							
(i)	Write short notes on: $(3+2=5)$							
	(i) Different stages of anesthesia.							
*	(ii)	Biosynthesis of Acetyl cho	line.					

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[Turn over

3. Answer any two questions:

- $(2 \times 10 = 20)$
- (a) Discuss the reactions involved in Phase I metabolism.
- (b) Classify NSAIDs along with suitable examples & write the mechanism of action, synthesis and uses of mefanamic acid and ibuprofen. (2 + 4 + 4 = 10)
- (c) Write the mechanism of action and synthesis of the following compound: (4+3+3=10)
 - (i) Salbutamol
 - (ii) Tolazoline
 - (iii) Phenytoin.