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Dougs Inspector

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HIPS

Booklet Series

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Register	
Number	·

2009

PHARMACY / PHARMACEUTICAL SCIENCES

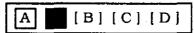
Time Allowed: 3 Hours]

[Maximum Marks : 300

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

- 1. This Booklet has a cover (this page) which should not be opened till the invigilator gives signal to open it at the commencement of the examination. As soon as the signal is received you should tear the right side of the booklet cover carefully to open the booklet. Then proceed to answer the questions.
- 2. This Question Booklet contains 200 questions.
- 3. Answer all questions.
- 4. All questions carry equal marks.
- 5. The Test Booklet is printed in four series e.g. A B C or D (See Top left side of this page). The candidate has to indicate in the space provided in the Answer Sheet the series of the booklet. For example, if the candidate gets A series booklet, he/she has to indicate in the side 2 of the Answer Sheet with Blue or Black Ink Ball point pen as follows:



- 6. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
- 7. An Answer Sheet will be supplied to you separately by the Invigilator to mark the answers. You must write your Name, Register No. and other particulars on side 1 of the Answer Sheet provided, failing which your Answer Sheet will not be evaluated.
- 8. You will also encode your Register Number, Subject Code etc., with Blue or Black ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, your Answer Sheet will not be evaluated.
- 9. Each question comprises four responses (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
- 10. In the Answer Sheet there are four brackets [A] [B] [C] and [D] against each question. To answer the questions you are to mark with Ball point pen ONLY ONE bracket of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. e.g. If for any item, (B) is the correct answer, you have to mark as follows:

[A] [C][D]

- 11. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
- 12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.
- 13. Do not tick-mark or mark the answers in the Question Booklet.

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Turn over

		.*		
1,		ich of the following trademarked s apsulated drug particles that will di		ned release systems are based on at various rates?
		I. Sequels		
		II. Spansules		
		III. Extentabs.		
	Of t	hese		
	A)	I only	B)	III only
	C)	I and II	D)	I, II and III.
2.		mpartmental models are often use irmacokinetics. A compartment is b		illustrate the various principles of fined as
	A)	any anatomic entity that is capable	e of al	osorbing drug
,	B)	a kinetically distinguishable pool of	f drug	S
	· C)	specific body organs in tissues that	at can	be assayed for drug
	D) ⁻	any body fluid such as blood in ur	ine th	at may contain drug.
3.	Din as	nethyl sulphoxide is commonly use	d as a	un excipient in transdermal patches
	A)	adhesive	•	
	B)	permeation enhancer of lipophilic	drugs	
	C)	permeation enhancer of hydrophil	lc dru	gs
	D)	release liner.	•	•
4.	wei			ng delivery would include molecular . for the saturated aqueous solution
	A)	< 500 Da, 1 – 5	B)	> 500 Da, 1 - 5
	C)	< 500 Da, 5 – 9	D)	> 500 Da, 5 - 9.
5.		of the following drugs are believed transformation, except	to un	ndergo significant first-pass hepatic
!	A)	phenytoin	B)	lidocaine
	C)	morphine	D)	nitroglycerine.

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6.	Agg	iomeration in aerosois can be rec	luced by	including		
	A)	anionic surfactants with HLB g	reater tha	un 10		
	B)	cationic surfactants with HLB l	ess than	10		
•	C)	non-ionic surfactants with HLB greater than 10				
	D)	non-ionic surfactants with HLB	less than	n 10.		
7.	In a	suspension, open network aggr	egate or f	loccule tends to		
	A)	settle quickly and cannot be ea	sily redis	persed		
	B)	settle slowly and can be easily	redispers	ed		
	C)	settle quickly and can be easily	redisper	sed		
	D)	settle slowly and cannot be eas	ally redisp	persed.		
8.	The	particle size range of nano-parti	cles is			
	A)	1 nm — 1 μm	B)	1 nm — 1000 nm		
	·C)	1nm — 100 nm	D)	$0.5 \ \mu m - 1 \ nm$.		
9.	Tra	nsdermal drug delivery systems	contain d	rugs meant for		
	A)	local action	B)	systemic action		
	C)	both (A) and (B)	D)	none of these.		
10.		ich one of the following per oral time?	dosage f	orms is likely to exhibit the longest		
	A)	Delayed release tablet	B)	Elixir		
	C)	Enteric coated tablet	D)	Sustained release capsule.		
11.	The	equation that describes the pro-	cess of 'P	assive Transport' is		
	A)	Noyes-Whitney equation	B)	Stokes law		
	C)	Fick's law	D)	Hofmeister rule.		
12.		gelatin used in the manufactu	re of cap	sules is obtained from collagenous		
	A)	hydrolysis	B) .	decarboxylation		
	C)	acetylation	D)	conjugation.		
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13.	Opa	alux is					
·	A)	colour concentrate for fluidized be	d coa	ting			
	B)	B) colour concentrate for film coating					
	C)	complete colour concentrate for er	nteric	coating			
	D)	colour concentrate for sugar coati	ng.				
14.	Cre	ams are					
	A)	emulsions	B)	gels			
	C)	jellies	D)	magmas.			
15.	Dis	solution tests for tablets are done to	meas	sure indirectly			
	A)	hardness	B)	bioavailability			
	C)	solubility	D)	friability.			
16.	Trichloromonofluoromethane is numerically designated as						
	A)	12	B)	11			
	C)	114	D)	22.			
17.	Sea	ling in sugar coating is done					
	A)	to release drug in the intestine					
	B)	to sustain release of the drug					
	C)	to round the edges of tablet core					
	D)	to prevent moisture penetration in	to tab	let core.			
18.		is used to remove the linjection.	Pyroge	en during the preparation of water			
	A)	Membrane filter	B)	Condenser			
	C)	Still head	D)	Filter head.			
19.	The	type of official eye ointment base is					
	A)	hydrocarbon	В)	absorption			
	C)	water miscible	D)	water soluble.			

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20.		enteral product with an osmotic pre- ride solution is referred to as	ssure	less than that of 0.9% w/v sodium
	A)	isotonic solution	B)	hypertonic solution
	C)	hypotonic solution	D)	iso-osmotic solution.
21.	Whi	ch of the following is not a super-dis	sinteg	rant?
	A)	Microcrystalline cellulose	B)	Sodium starch glycolate
	C)	Croscarmelose	D}	Crosporidone.
22.	Terr	ninally sterilized products are		
	A)	those that are sensitive to heat and	gamı	na irradiation
	B)	those that can be sterilized after fil	ling a	nd sealing
	C)	those products that can be autocla	ved	•
	D)	usually suspensions or powders.		
23.	Slug	gging is also called as		·
	A) ,	dry granulation	B)	wet granulation
	C)	bulk production	D)	direct compression.
24.	Pine	ocytosis is known as		·
	A)	vesicular transport	B)	engulfment of small solutes
	C)	engulfment of larger particles	D)	absorption phenomena.
2 5.		of the substances that are requervision and which are labelled according	•	* '
	A)	R	B)	G .
	C)	P	D)	C and C_1 .
26.		ablishment(s) which has/have a qu g is / are	alified	person engaged in compounding of
	A)	Drug store	B)	Chemists and druggists
	C)	Pharmacy	D)	none of these.
x B	01	OS	.	

27.	Lice	nce for wholesale of drugs spec	ifled in t	he schedule C and C_1 is issued in
	Fort	n		
:	A)	20-A	B)	20-B
1	C) ⁻	21-B	D)	22-A.
28.	The	left hand top corner of the label	of sched	ule X bulk drugs contains symbol,
1	A)	R_X	B)	RMP
1 · · · · · · · · · · · · · · · · · · ·	C)	X	D)	XR _X
29 .		constitution of State Pharmac	cy Coun	icils total number of Registered
,	A)	five ,	B)	six
	C)	seven	D)	four.
30.	The	Drugs and Cosmetics Rules wer	e passed	in the year of
	A)	1945	B)	1947
1 + + + + + + + + + + + + + + + + + + +	C)	1944	D)	1946.
31.		v many representatives are nom sultative Committee ?	inated b	y the Central Government to Drug
	A)	1	B)	2
0.7	C)	3	D)	4.
32.		sample taken by the Drug Ins ded into	pector fi	rom the retail premises should be
1 1	A)	4 parts	B)	3 parts
E.	C)	2 parts	D)	5 parts.
33.	-	er GMP, change rooms to the as should be clearly demarcated in	-	as of sterile product manufacturing llowing rooms, <i>except</i>
	A)	Black room	B)	Blue room
	C)	Grey room	D)	White room.
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34.	As per GMP, during tablet compression, in-process control should be done at regular intervals of					
	A)	not more than 45 minutes	B)	not more than one hour		
	C)	not more than 30 minutes	D)	every one hour.		
35.	Dru	g (Price Control) Order came into	force i	n the year		
	A)	1979	B)	1955		
•	C)	1960	D)	1987.		
36.	Equ	ipment recommended for the manu	factu	re of powders come under		
	A)	Schedule H	B)	Schedule M		
	C)	Schedule N	D)	Schedule X.		
37.	Magic remedies include					
-	A)	Talismans	B)	Mantras		
	C)	Kavachas	D)	all of these.		
38.	Spu	urious drugs mean				
	A)	imitations	B)	substitutes		
	C)	resembling other drugs	D)	all of these.		
39.	GM	P for Ayurvedic, Siddha and Unani	medic	cines are covered by		
	A)	Schedule U	B)	Schedule T		
	C)	Schedule W	D)	Schedule M.		
4 0.	Pro	toplasmic plant tissue culture meth	od wa	s introduced in 1960 by		
	A)	Cocking	B)	Skoog & Miller		
	C)	Gamborg and Neabors	D)	Carlson.		

41.		sugar concentration of molasses us uld be	sed in	the production of industrial alcohol
-	A) _	10% to 18%	B)	4% to 8%
	C)	15% to 25%	D)	20% to 30%.
42 .	The	fibrin clot produced when thrombin	is m	ixed with
,	A)	fibrinogen	B)	fibrin foam
	C)	dried human serum	D)	citrate-saline.
43.	Exo	toxin producing bacteria are		
	À)	Salmonella typhi	B)	Vibrio cholerae
	C)	Clostridium tetani	D)	Pasteurella pestis.
44.	Foll	owing are the carbon sources us	sed in	the fermentative production of
	L-gl	utamic acid, except		
	A)	n-paraffin	B)	acetic acid
:	(C)	ethanol	D) ·	propylene glycol.
45.	·	ong the proteins present in horse se ociated with	rum,	antitoxins (diphtheria) are largely
	A) :	gamma globulins	B)	beta globulins
	C)	albumins	D)	all of these.
46	Sma	all bench fermentors are made up of	******	material.
	A)	stainless steel	B)	borosilicate glass
	C)	plastic	D)	all of these.
47.	Bior	reactor is the instrument used for gr	owing	
	A)	bacterial cells	B)	insect cells
	C)	mammalian cells	D)	both (B) and (C).

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48. Transfer of genetic material from one bacterium to another bacterium thr			ium to another bacterium through	
•	bact	teriophage is called	•	
	A)	Transduction	_ B)	Conjugation
	C)	Transformation	D)	all of these.
49.	Mac	roglobulin is		
	A)	Ig M	B)	Ig A
	C)	Ig D	D)	Ig E.
50.	Sch	ick test is performed for testing ti	he indiv	idual for the presence of
	A)	Polio	B)	Pneumonia
	C)	Diphtheria	D)	Tuberculosis.
51.	The	target site on DNA for Bam HI en	donucle	ease is
	A)	G ↓ GATCC	B)	G ↓ AATTC
	C)	gg ↓ cc	D)	A ↓ AGCTT.
52 .	Qua	ality control of vaccines is carried	out by .	studies.
	A)	in vivo	B)	in vitro
	C)	in vivo and in vitro	D)	neither in vivo nor in vitro.
53.	Wh	ooping cough vaccine employs kil	led cell o	of
	A)	Bordetella pertussis	B)	Pseudomonas aeruginosa
	C)	Vibrio cholerae	D)	Salmonella typhii.
54.	Wh	ich one of the following is the sui	table sit	e of self-injection of interferons?
	A)	Subcutaneous	B)	Abdomen
,	C)	Legs	D)	Finger.
55.	.A si	gnificant number of antibodies no	ow in us	e belongs to Immunoglobulin,
	A)	Ig G	B)	Ig H
	C)	Ig M	D)	Ig I.
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6.	Hig	h concentration of several proteins i	s obta	uned from serum.
٠	A)	monkey	B)	horse
	C)	rabbit	D)	rat.
5 7		ich drug is used to prevent embolarction?	ism ii	n the lung and during myocardial
	A)	Granulocyte-macrophage colony-st	imula	ting factor (GM-CSF)
	B)	Alteplase	•	
	C)	EPOGEN (EPO)		
	D)	Human growth hormone.		
58.	Wh	ich enzyme is used by the HIV to for	rm DN	IA in the host cell ?
	A) .	Restrictive endonuclease	B)	DNA-directed polymerase
	C)	Reverse transcriptase	D)	Both (A) and (B).
59.	Wh	ich type of cell does not contain dou	ble-st	randed deoxyribonucleic acid?
	A)	Human cells		
	B)	Bacteria cells		
•	C)	Human immunodeficiency virus (HľV) (cells
	D)	Fungal cells.		
6 0.	Dex	trans are used as blood-plasma vol	ume e	xtenders because
	A)	they are heat sterilized	B)	they do not carry virus
	C)	both (A) and (B)	D)	none of these.
61.	The	organism used for the production of	of Dex	tran is
	A)	Leuconostoc mesenterolds	B)	Lactobacillus bulgarium
	C)	Clostridium botulinum	D)	Granulobacter botulinum.
32 .	Med	chanism of citric acid fermentation i	s conf	irmed by
	A) ' -	theory of Emde	B)	Krebs' cycle
	C)	theory of Ciusa and Brüll	D)	Bernhauer's theory.
				•

- HIPS 12 The first pharmaceutical product to be produced by mammalian cell culture is · A) tPA B) **tRNA** · tG_H. tDNA C) D) India is the country in the world to develop an indigenous Hepatitis-B vaccine. 2nd B) 3rd A) 4th C) D) 5th. Extinction E =65. $\log \frac{I_0}{I_1}$ B) I_1/I_0 I_0 10 -Ct. C) D) The stationary phase in Thin-Layer Chromatography (TLC) is adsorbent A) B) liquid held between glass plate and adsorbent C) glass plate none of these. D) The wave number is defined as number of waves per unit of length A) B) number of waves per unit of metre number of waves per cm C) number of waves per unit of width. The quality assurance personnel responsibilities does not include **A)** maintaining copies of approved study plans
 - B) preparation of SOP
 - C) inspection of final reports to confirm methods and procedures
 - D) issue of product development plan.

69.	The constituents of Karl Fischer reagent are	•
	A) SO ₃ , solution of iodine, anhydrous pyridine, ethanol	
	B) SO ₂ , solution of iodine, anhydrous pyridine, acetone	
	C) SO 3, solution of iodine, anhydrous pyridine, anhydrous methano	1
·	D) SO_2 , solution of iodine, anhydrous pyridine, anhydrous methano	1.
70 .	In electron capture detector, may be used as a carricompounds of high electron affinity.	er gas for
	A) Nitrogen B) Argon	
. :	C) Hydrogen D) Carbon dioxide.	
71.	Which of the following statements about ISO is incorrect?	
:	A) ISO certifies organisations which apply for ISO 9001 compliance.	
	B) ISO 9000 is not a prescriptive standard for quality.	
	C) ISO 9000 is a process oriented rather than result oriented standards	rd.
	D) ISO 9000 does not provide industry specific performance requires	nents.
72	The composition of the Barium sulphate reagent used in the limit sulphates is	t test for
ě	A) Barium sulphate, Sulphate free alcohol and Ferrous sulphate	
	B) Barium chloride, alcohol and Potassium chloride	
	C) Barium sulphate, alcohol and Potassium chloride	,
ī	D) Barium chloride, Sulphate free alcohol and Potassium sulphate.	
73.	Katharometers & Bolometers are different types of	
į	A) pumps B) detectors	
	C) monochromators D) recorders.	
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74.	In IR spectroscopy which region provides information for molecular structure elucidation?			
	A)	Near IR	B)	Far IR
	C)	Middle IR	D)	Very near IR.
75.	In H	IPLC which detector is based upon	bulk j	property of elute ?
	A)	Refractive index detectors	B)	Diode array detectors
	C)	Fluorescence detectors	D)	PMT.
76.	Exa	mple for Emission Spectroscopy is		·
	A)	Atomic Absorption Spectroscopy	B)	Flame Photometry
	C)	Fluorimetry	D)	all of these.
77.	In N	MR spectroscopy, the chemical shi	ft is e	xpressed in
	A)	gauss	B)	parts per million
	C)	tesla	D)	hertz.
78.	In n	nass spectroscopy for chemical ioni d ?	zation	which reactant gas is most widely
	A)	Argon	B)	Neon
	C)	Methane , '	D)	Oxygen.
79.		the determination of selenium treased by using the reagent,	y Flu	orimetry, the sensitivity can be
	A)	2, 3-diaminonaphthalene		
	B)	3, 3-diaminobenzidine		
	C)	Cyanogen chloride		
	D)	75% v/v sulphuric acid in ethano	l.	·
80.		IR spectra, the absorption at 3300 sence of	cm -	1 and at 1020 cm ⁻¹ indicates the
	A)	NH group	B)	Amide - C = O
	C)	Aliphatic C – H	D)	Hydroxyl group.

8 1.	As per the GLP, full calibration of spectrophotometers should be done						
	A)	once a day	B)	once a month			
	C)	every quarter	D)	half-yearly.			
82.	The	closeness of the results obtained by	y the	procedure to the true value is			
	A) (linearity	B)	precision			
	C)	accuracy	D)	sensitivity.			
83.	Which of the following contains a chromophore?						
:	A)	Ethylene	B)	Ethane .			
	C)	Both (A) and (B)	D)	None of these.			
84.	The	presence of which of the following	group	s increases fluorescence intensity?			
ŀ	A)	Amino group	B)	Nitro group			
	C)	[‡] Both (A) and (B)	D)	None of these.			
85.	The	purple colour formed in the limit to	est for	iron is due to			
ė	A)	Ferric thioglycolate	B)	Ferrous thioglycolate			
ŧ	C)	Ferrous glycolate	D)	Ferric glycolate.			
86.	R_f	value ranges from					
	A)	0 to 1	B)	0 to 2			
	C)	2 to -2	D)	+ 1 to - 1.			
87.	In ț	he limit test for arsenic the granula	ted zir	ic and HCl help to			
	A)	increase the sensitivity of the test		•			
	B)	produce stable colour					
, if	C)	provide an acid medium					
; j.	D)	reduce the arsenic or arsenious ac	cid to	arsine.			
88.		he limit test for sulphates, the alcol	hol in	the Barium sulphate reagent helps			
	to.						
	A)	increase the solubility	B)	prevent ppt of impurities			
	C)	clarify the solution	D)	prevent super-saturation.			

The volume of carrier gas required to elute one half of the compound column is expressed as			one half of the compound from the		
	A)	Retention time	B)	R_f value	
	C)	R_X value	D)	Retention volume.	
90.	In II	R spectrum, the functional group re	gion i	s .	
	A)	4000 cm ⁻¹ to 900 cm ⁻¹	B)	4000 cm ⁻¹ to 1400 cm ⁻¹	
	C) _.	1400 cm ⁻¹ to 900 cm ⁻¹	D)	4000 cm ⁻¹ to 660 cm ⁻¹ .	
91.		ample is withdrawn or seized fro led. The payment of fair price of the		ug store by a drug inspector and ple	
•	A)	is made to the drug store owner		e t	
	· B)	is not made			
	C)	is made to the drug store owner with a receipt	and i	n case of refusal a Form is filled up	
	D)	the drug store owner must be ins	isted	to give it free of cost.	
92.		rugs Technical Advisory Board (DTAB)-Allopathy consists of 18 members hereas DTAB-Ayurvedic, Siddha and Unani drugs consists of			
	A)	18 members	B)	20 members	
	C)	15 members	D)	none of these.	
93.		e list of disease for which advertise sultation with	ment	banned or prohibited is finalised in	
,	A)	Drugs Technical Advisory Board			
	B)	Drugs Testing Laboratory	**		
	C)	Central Drugs Laboratory	•	•	
	D)	None of these.			
94.	Wh	ich one of the following is not the w	ring of	Drugs and Cosmetics Act?	
	A)	Advisory wing	B)	Analytical wing	
	C)	Administrative wing	D)	Education and Pharmacy wing.	
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95.	Gudakhu is a tobacco product used for rubbing against human teeth, contains tobacco powder, lime and molasses along with red mineral matter. Within the				
	pro A)	vision of D & C Act it is cosmetic	B)	food	
	C)	drug	D)	none of these.	
96.	Sch	edule M incorporating GMP (Goo	d Manu	facturing Practices) was introduced	
	in	* · · · · · · · · · · · · · · · · · · ·			
	A)	1987	B)	1988	
; F	C)	1989	D)	1990.	
97.	In t	he Drugs (Price Control) Order,	1995 th	e first schedule consists of	
ŀ	A)	list of books	B)	list of bulk drugs	
†·	C)	list of formulations	D)	none of these.	
98.	The	First Schedule of Drugs and Cos	metics A	Act, 1940 comprises	
	A)	the list of books of references for	r Ayurve	edic, Siddha and Unani medicines	
	B)	list of Pharmacy books			
	C)	list of Homeopathic books			
	D)	none of these.			
99.	Bate	ch Processing Records (BPR) sho	uld con	tain the following details, except	
	A)	Analytical control number			
	B) `	Raw material manufacturers' det	ail		
	c)	Batch number			
	D)	Date of commencement of opera	tion.		
100.	The	Head Office of Drugs Technical A	dvisory	Board is at	
	A)	New Delhi	B)	Kolkata	
	C)	Mumbai	D)	Chennai.	
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101.	The	anda	rrhythn	nic dru	g quinic	iine is			
	A)	(+)	stereois	somer	of quini	ne	· .		
	B)	(-)	stereois	omer (of quini	ne			
	C)	(+)	racemio	e mixtu	ire of qu	iinine	•	•	
	D)	non	e of the	se.				• •	
102.	The	IUPA	C nome	enclatu	re of Pi	roxican	n is		
r·	A)		1, 2-be -dioxide		azine-3	-carbo	kamide,	4 hydroxy 2-methyl-N-pyridinyl	-,
	B)	2-na	aphthale	ene ace	tic acid	, (+)6	methox	y-α-methyl	٠
	C)	Ben	zene ac	etic aci	d (±) o	-methy	1-4-(2-m	nethyl propyl)	
	D)	Ben	zoic aci	d, 2-[(2, 6-dic	hloro-3	- methy	phenyl) amino]	
103.	Praz	zepan	n differs	in str	ucture i	from D	iazepam	by	
4	A)	N-m	ethyl gr	oup			B)	N-propyl group	
-	C)	N-cy	clo pro	pyl me	thyl gro	up	D)	N-cyclo propyl group.	
104.	Some psychoactive phenothiezines listed below have the following side chains a position 10, which are given in 1 to 4. Match them correctly:								
		a)	Chlor	romaz	ine .	·	1.	3-[4 methyl piperazinel-yl] prop	y
	ē	b)	Prochl	orpera	zine		2.	2-(1 methyl piperide 2-yl) ethyl	•
1		c)	Thioric	dazine			3.	3-[4- (2 hydroxy ethyl)	
								piperazine 1-V j propyl	
-		d)	Perph	enazin	e	,	4.	Dimethyl aminopropyl.	
	Coc	les :							
		a	ъ	· C	d ·		•		
	A)	4	1	2	3				,
ί,	B)	1	2	1	3				
τ	C)	2	3	4	2				
Ę	D)	3	4	3	1.			•	

105.	. From the given pairs of diuretics in which pair both the drugs do not require the presence of aldosterone to produce diuresis ?			
	. A)	Mannitol and Spiranolactone		
	B)	Spiranolactone and Triamterene		
•	C)	Triamterene and Amiloride		
	(D)	Spiranolactone and Amiloride.		
106.	The	diuretic that is natriuretic, chlorure	tic, sa	luretic and antikaliuretic, is
	A) :	Spiranolactone .	B)	Furosemide
	C)	Ethacrynic acid	D)	Acetazolamide.
107.		he given pairs of antihistamines, t histamines is	he pa	ir in which both are, 'dual-acting'
	À)	Cetirizine and Cromolyn sodium		
:	B)	Azelastine and Cetirizine	٠.	
	C)	Azelastine and Ketotifen		
٠	D }	Ketotifen and Cromolyn sodium.		
108.	Diaz	zoxide and Minoxidil can be describe	d as	
	A)	Potassium channel openers	B)	Potassium sparing diuretics
	C)	Calcium channel blockers	D)	Sodium channel openers.
109.		ne lidocaine series of local anaesthe n up to three carbon units,		
	A)	increases	B)	abolishes
	C)	reduces	D)	does not alter.
110.	Whie easil	ch of the following anti-histamines ly ?	does	not cross the blood brain barrier
	A)	Diphenhydramine	B)	Cyclizine hydrochloride
	C)	Chlorpheniramine maleate	D)	Cetirizine.
x 90	1	09]	[Turn over

HIPS		20		
111.	The	fluorine in Flurazepam is present in		
	A) _	5 position	B)	3' position
	C)	2 position	D)	4' position.
112.	Rani	tidine contains heteroc	yclic r	ring.
	A)	Imidazole	B)	Furan
	C)	Thiazole	D)	Pyridine.
113.	Aspi	rin can be estimated by	•	
	A)	non-aqueous titration	B)	complexometry
	C)	acid-base titration	D)	dead-stop end point method.
114.	Whi	ch of the following is anti-cholinergi	drug	; ? ·
	A)	Carbachol	B)	Phenyl ephrine
	C)	Eucatropine	D)	Procainamide.
115.	Clor	aidine is used in the treatment of th	e follo	wing disorders, except
	A)	glaucoma	B)	hypertension
•	C)	arrhythmia	D}	opiate withdrawal syndrome.
	O	OH NHCH (CH ₃) ₂		
116.		is the str	ucture	e of
	C	H ₂ CONH ₂		
	A)	Atenolol	B)	Metoprolol
	C)	Acebutolol	D)	Timolol.
117.	A ce	ntral carbon atom not directly con	necte	d to any H $_2$ and is connected to
	terti	ary nitrogen through a 2 carbon ur	it on	the other side with relatively sma

- а 11 groups on the nitrogen is the pharmacophore of
 - A) H₁ receptor antagonists
- Narcotic analgesics B)

C) Thiazide diuretics

Butyrophenone antipsychotrics. D)

118.	Hon	omatropine is a semisynthetic obtained or synthesised by reacting					
٠.	A)	Tropine and Succinic acid	B)	Tropine and Malic acid			
	C)	Tropine and Fumaric acid	D)	Tropine and Mandelic acid.			
119.	The	2 '-chloro substituted analogue of	oxaze	pam is			
	A)	Lorazepam	B)	Diazepam			
	C)	Temazepam	, D)	Prazepam.			
120.	Ana	lgesic with N-Aryl anthranillic acid	nucleı	ıs is			
	A)	Paracetamol	B)	Meclofenamic acid			
	C)	Phenyl butazone	D)	Anti-pyrine.			
121.	Cho	linergic receptor antagonist existin	g as er	nantiomer is			
	A)	Methacholine	B)	Carbachol			
	C)	Acetyl choline	D)	Bethanechol.			
122.	Trip	elennamine is used as its					
	A)	Succinate	B)	Maleate			
	C)	Adipate	D)	Citrate.			
123.	Whi	ch one of the following is not a nor	-barbi	turate?			
	A)	Paraldehyde	B)	Carbromal			
	C)	Nitrazepam	D)	Thiopental Sodium.			
124.	Cycl	omethycaine sulphate is used in					
	A)	anaesthetic in chemical burns					
	B)	skin abrasions		•			
	C)	dermatological lesions					
	D)	all of these.					
125.	Rese	erpine is contraindicated in patient	s with	a history of			
	A)	Epilepsy	B)	Hypertension			
	C) :	Mental depression	D)	Schizophrenia.			
x	ī		9	I Turn ove			

126.	Digitalis overdose can be reversed by the administration of					
	A)	A) Phenytoin				
	B)	Calcium				
	C)	Fab fragments of Digoxin antibody				
	D)	Sodium.				
127.	Dru	gs causing allergic reactions general	lly act	as		
	A)	Antigen	B)	Haptens		
	C)	Antibodies	D)	Mediators.		
128.	A po	otent tranquilizer which also exhibit	s stroi	ng hypotensive effect is		
	A)	Chlordiazepoxide	B)	Meprobamate		
	C)	Reserpine	D)	Thorazine.		
129.	Salid	cylates are metabolised through				
	A)	hydroxylation	B)	oxidation		
	Ç)	conjugation with glucuronic acid	D)	reduction.		
130.	Sod	ium valproate acts by				
	A)	blocking the metabolism of GABA		*:		
	B)	blocking the GABA receptor				
	C)	blocking the conduction of impulse	es			
	D)	blocking the release of GABA.				
131. Atorvastatin should be taken at night after dinner because				nner because		
	A)	it induces sleep		•		
	B)	synthesis of cholesterol is maximu	ım du	ring night		
	C)	the patient would be affected by s	unligh	it if taken during daytime		
	ונו	of hetter absorption.				

132.	. Thiocyanate accumulation and the consequent toxicity is a possibility when				
	exce	ss dose of is admin	istered	,	
	A)	Minoxidil	B) '	Hydralazine	
	C)	Sodium nitroprusside	D)	Clonidine.	
133.	The	specific antidote for Paracetamol p	oisonin	ng is	•
	A)	4-Methyl Pyrrazole	·B) ,	N-Acetyl cysteine	
. Stage of the control of the contro	C) ¹	Folinic acid	D)	Sodium thiosulphate.	•
134.	Digi	talis produces bradycardia by the f	ollowin	ng mechanisms, except	
A COMPANY	A)	reflexly through no dose ganglion			
	В)	direct stimulation of vagal centre			
September 1	C)	sensitization of SA Node to acetyle	holine		
enter residente	D)	sensitization of SA Node to adrena	line.		
135.	Pilo	carpine can be used in		•	
iller organism in the control of the	A)	Asthma	B)	Coronary insufficiency	,
- Address of the Control of the Cont	C)	Glaucoma	D)	Hyperthyroidism.	
136.	Flu	oxetine is a / an			
er i version de la company	A)	5-HT partial agonist			
	B)	anti-histaminic	-		
Esch Constitution	C)·	inhibitor of 5-HT uptake	4.		
Acceptance of the second	D)	specific 5-HT 3 receptor antagonis	st.		
137.	Tole	rance refers to genetically determin	ned sen	sitivity to a drug called	as
	A)	innate tolerance	i.	•	
ساستهاره، خواه	B)	learned tolerance			
T - Sandy out of the last	C)	acute tolerance			
# *=	D)	dispositional tolerance.			
x 90	1	Ot	€		[Turn over

130.	AA 111C	m one of the following is correctly	materi	tu ?
	A)	α-adrenergic antagonist	- .	Lisinopril
	B)	β-adrenergic antagonist	.—	Propranolol
	C)	Arterial vasodilators	_	Clonidine
	D)	Calcium channel blocker		Diazoxide.
139.		movement of drug from a region drug concentration is referred as	of high	drug concentration to a region of
	A)	facilitated diffusion	B)	pore transport
	C)	active transport	D)	vesicular transport.
140.	The	biotransformation reaction involv	ed in me	etabolism of methyl dopa is
	A)	Acetylation	B)	Sulphation
	C)	N-oxidation	D)	S-oxidation.
141.		asthma/COPD patients, which ded?	type of	antihypertensive drug should be
	A)	β-adrenergic blockers	B)	Diuretics
	C)	Calcium channel blockers	D)	ACE inhibitors.
142.	Dru	gs having hydroxyl or carboxylic a	icid grou	ip can easily conjugate with
	A)	sulphate	B)	glycine
	C)	acetyl coenzyme-A	, D)	glucuronic acid.
143.	Cole	estipol is a/an dr	ug.	
	A)	HMG CoA reductase inhibitor	B)	activate PPAR-α receptors
	C)	Bile acid binding agent	D)	heavy metal binding agent.
144.	Rate	e limiting step in the biosynthesis	of catec	holamines is
	A)	formation of dopamine	B)	formation of dopa
	C)	transport of tyrosine	D)	formation of noradrenaline.
x 90	1		09	·

145.	ACE inhibitors can cause teratogenicity.					
	A)	Phocomelia	B)	Hyperplasia		
	C)	Phytomelia	D)	Hypoplasia.		
146.	Anti	dote for benzodiazepine overdos	sage is			
	A)	Flumazenil	B)	Flupenthixol		
	C)	Fluphenazine	D)	Fluoxentine.		
147.		ch of the NSAIDS would be of poulty in remembering to take hi		use in an arthritic patient who has lication during the day ?		
	A)	Diclofenac sodium	B)	Fenoprofen		
	C)	Ibuprofen	D)	Oxaprozin.		
148.		type of tissue culture used for nown as	the produc	ction of root-associated metabolites		
	A)	tissue culture	B)	hairy root culture		
	C)	two-phase system culture	D)	all of these.		
149.	The	production of secondary metab	olites is lir	nked to the		
•	A) .	induction of morphological diffe	erentiation			
	B)	topographical changes				
•	C)	environmental changes				
	D)	atmospheric changes.				
150.	The	optimum pH of tissue culture n	nedia is			
٠	A)	5 - 8	B)	6 – 8		
;	C)	5 – 6	D)	5 - 7.		
151.	Bota	nnical source of cotton is				
	A)	Populus nigra	B)	Gossypium harbadense		
	C)	Linum usitassimum	D)	none of these.		
x 90	1	3	09	[Turn over		

152.	Gun	mar comprises the			
	A)	stem and roots of Gymnema sylves	stre	•	
	B)	leaves of Gymnema sylvestre			
	C)	powdered endosperm of the seeds	of Cya	amopsis tetragonolobus	
	D)	dried fruits of Ammi majus.	•		
153.	Fron	n callus, root growth can be enhanc	ed by	•	-
	A)	increasing Cytokinin amount than t	that of	f Auxin	
	B)	increasing Auxin amount than that	of Cy	tokinin	
	C)	adding no hormone			
	D)	adding Gibberellins.			
154.	The	adulterant of purple Foxglove leave	s is		
	A)	Synphytum officinale	B) .	Cinchona officinale	
	C) .	Convallarie majalis	D)	Urginea maritima.	
155.	Naro	cotine contains which of the following	ig moi	leties ?	
	A)	Phenanthrene	B)	Benzyl isoquinoline	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	C) .	Quinoline	D)	Naphthalene.	
156.		principal active constituents of wo	hich	of the following drugs	are dimeric
	A)	Aloe	B)	Senna	
,	C)	Digitalis	D)	Senna and Aloes.	
157.		baloin and Sennoside-A can be cate bectively.	egoris	ed as and	•••••
	A)	C-Glycoside, O-Glycoside			
	B)	O-Glycoside, C-Glycoside			
	C)	C-Glycoside, N-Glycoside			- 1 V
	D)	O-Glycoside, N-Glycoside.			

		·						
158.	3. Adenine and kinetin are collectively called as							
	A)	Auxins	B)	Gibberellins				
	C)	Cytokinin	D)	Zeatin.				
159.	The	ideal way to provide iron for a root	cultu	re would be to include				
•	in the medium.							
	A)	FeCl ₃	B)	Fe ₂ (SO ₄) ₃				
	C)	Fe EDTA	D)	FeSO ₄ .				
160.	Whi	ch type of glycoside is present in al	oes ?					
	A)	O-Glycoside	B)	S-Glycoside				
	C)	N-Glycoside	D)	C-Glycoside.				
161.	Kell	er-Kiliani is a colour test specific for	the ic	dentification of				
	A)	Sugar Molety	B).	Glycoside Moiety				
	C)	Deoxy Sugar Molety	D)	Both (A) and (B).				
.162.	Whi	ch of the following drugs is a natura	ıl inse	ecticide ?				
	A)	Pyrethrum	B)	Tulsi				
	C)	Tylopora	D)	Bael.				
163.	Abs	orbent cotton dissolves completely w	/ith u	niform swelling in				
,	A)	60% w/w sulphuric acid						
	B)	90% formic acid						
	C)	Ammoniacal copper oxide						
	D)	Ferrous ammonium sulphate.						
164.	Deve	elopment of Novel hybrid plant can	be acl	nieved with				
•	A)	organ culture	B)	cell-suspension culture				
	°C)	callus culture	D)	protoplast culture.				
				,				

165.	The	botanical name of Aloes from So	uth Afric	a (Cape variety) is
	A)	Aloe barbadensis	В)	Aloe ferox
	C)	Aloe perryl	D)	Aloe candelabrum
166.	Cas	sia senna is cultivated in		
	A)	India	B)	Arabia
	C)	Somalia	D)	Sudan.
167.	Nap	hthalene glycoside isolated from	senna le	aves and pods is
	A)	Sennoside A		•
	B)	Rhein-1-glucose		
	C) .	Rhein-8 diglucoside	•	
	D)	6-hydroxymusizin glucoside.		
168.	Foll	owing are the chemical constitue	ents of B	rahmi <i>except</i>
	A)	Saponins	B)	Glucosides
	C)	Alkaloid Brahmine	D)	Herpestine.
169	. Sen	na contains		
	A)	C-glycosides	B)	O-glycosides
	C)	S-glycosides	D)	N-glycosides.
170	. Dig	italis leaves should be dried belo	ow	
	A)	50°C	·B)	80°C
	C)	60°C	D)	100°C.
171	. Cer	ntella asiatica belongs to the fam	ily of	
	A)	Scrophulariaceae	B)	Umbelliferae
	C)	Rosaceae	D)	Araliaceae.
x 9	01		09	

172.	Holy	basil is the synonym for		
	A)	Methi	B)	Gymnema
	C)	Tulsi	D)	Digitalis.
173.	A pla	acement for storage of products is		
	A)	private warehouse	B)	public warehouse
	C)	bonded warehouse	D)	all of these.
174.	Whic	ch of the following levels of material	cautic	ons against stock-out?
	A)	Reordering level	B)	Minimum level
	C)	Maximum level	D)	Average stock level.
175.	Selec	ction of site of a drug store depends	upon	
	A)	availability of finance	B)	existence of hospitals
	C)	safety	D)	all of these.
176.	Whic	th of the following is/are objective(s	of pu	rchasing?
	A)	Purchase of right quality	B)	Purchase of right quantity
	'C)	Purchase from right source	D)	All of these.
177.		can be considered as prima	ury soi	urces of drug information.
	A)	Pharmacopoeias	B)	Journals (drug based)
	C)	Package inserts	D)	Formularies.
178.	Inda	pamide is taken preferably in the m	orninį	g because
	A)	exposure to sunlight helps conversi	on to	active metabolite
	В)	to minimize the effect of increased i	freque	ncy of urination during night
	C)	cholesterol synthesis is least during	g dayt	ime
	D)	cholesterol synthesis is maximum d	luring	daytime.

179.	_	g term storage of which one of the 20°C?	ne foll	lowing	vaccines	demands	storag
	A)	DPT	B)	DT			
	C)	Oral polio vaccine	Ď)	TT.			
180.	In in	nmunization parlance, VVM refers to	o				
	A)	Vulnerable Vaccine Method					
	B)	Vulnerable Vaccine Mode			•		
•	C)	Vaccine Vial Monitor					
	D)	Vital Vaccine Method.					
181.	ICH	means					
	A)	International Conference on Harmo	nisati	on			·
	B) ,	International Committee on Harmon	nisatio	n			
	C)	International Council on Harmonisa	ition		-		
	D)	none of these.					
182.	The	dose related adverse reaction is cal	led as	3		·	
	A)	Type A	B)	Туре	B .		•
	C)	Type C	D)	Туре	D.		
183.				igh the	National	Library of	Medicin
	A)	BIOSIS	B)	EMB.	ASE		
	C)	MEDLINE	D)	Scien	ice Citatio	n Index.	
184	In A	ABC analysis C denotes					
	A)	average usage value items					
	B)	low usage value items					
	C)	costly and valuable items					

D)

fast moving items.

		,			
185.	The	drugs that show antagonistic effect	s in na	ature whereby the sens	sitivity of the
	tissı	ues to one drug is altered by anothe	r drug	g, are	
	A)	Trimethoprin and Sulphonamide			
	B)	Acetylcholine and Noradrenaline			
	C)	Digitalis glycosides and Diuretics			
gi e	D)	Warfarin and Phenobarbital.			
186.	The	term used to describe abnormal dr	ug res	ponse is	
`\. 9	A)	Hypersensitivity	B)	Idiosyncrasy	
	C)~	Anaphylaxis	D)	Teratogenicity.	
187.	Hos	pital pharmacy deals with		•	
:	A)	supply of ancillary products	•		
Se T	B)	storage of biological products			
•	C)	purchase of inventory drugs			
- 4 1.	D)	both (A) and (B).			
188.	Dru	g causing direct liver damage is			
	A)	Isoniazid	В)	Indomethacin	
• :	C)	Phenytoin	D)	Aspirin.	
: 1 89 .	Milk	and antacids reduce absorption of	tetrac	yclines by forming	
	A)	chelation	B)	complexes	
	C)	protein binder	D)	insoluble complexes.	
x 90	1	09	1		[Turn over

190. Which one of the following statements is matched correctly?						
	A)	Drug abuse		repeated consumption of a drug		
	B)	Drug misuse	_	use of drugs for the conditions for which the		
				are unsuited		
	C)	Drug addiction		decreased response to pharmacological drugs		
	D)	Drug tolerance		periodic or chronic intoxication produced b		
				repeated consumption.		
191.	Med	lication errors include	e	•		
	A)	dispensing errors ar	nd medie	cation		
	B)	patient compliance		•		
	C)	exact prescription				
	D)	none of these.				
192.			juices	antagonise the efficacy of		
	anu	psychotic drugs.				
	A) ·	Thioxantins		B) Butyrophenones		
٠	C)	Phenothiazines		D) Sulpiride.		
193.	The	principles of ICH gui	deline f	or GCP have their origin in		
	A)	Declaration of Canad	da			
	В)	Declaration of Helsi	nki			
	C)	Declaration of Austr	ia			
	D)	Declaration of Austr	alia.	•		

194.	Pha	Phase-I clinical trials are carried out							
		I.	to determine the maximum t	olerat	ed dose in humans				
•		II.	to determine the pharmacok	inetics	and pharmadynamics activity				
		III.	in healthy adult males						
		IV.	in healthy adult females.						
	Of t	hese							
	A)	I an	d II	B)	II, III and IV				
	C)	III a	nd IV	D)	I, II and III.				
195.			who swallows an overdose of e treated with	fluorie	de containing multivitamin product				
	A)	acet	yl cysteine	B)	dilute Ca (OH) $_2$ solution				
	C)	docı	ısate sodium	D)	atropine sulphate.				
196.	Cho	Cholestyramine will probably interfere with the GI absorption of							
		ĮI.	Chlorothiazide		÷				
		II.	Warfarin	÷					
		III.	Phenobarbital.						
	Of t	nese							
	A)	I on	y	B)	II and III				
	C)	I, II	and III	D)	no interference.				
197.	Dru	g info	rmation sources include all, e	xcept					
	A)	jour	nals	B)	drugdex				
	C)	daili	es	D)	online pharmacy journals.				
198.	In inventory control the turnover rate is calculated by which of the following formulae?								
	A)	Ann	ual purchase + Annual invento	ory					
	B)	Ann	ual purchase × Annual invento	ory					
	C)	Ann	ual inventory + Annual purcha	se					
	D)	Ann	ual purchase + Annual invento	ory.					

09

- 199. Aluminium hydroxide gel is combined with Magnesium hydroxide gel in antacid preparations to
 - A) ensure synergism
 - B) counter the constipating effect of magnesium hydroxide
 - C) balance the purgative effect of magnesium hydroxide
 - D) improve the absorption of magnesium hydroxide.
- 200. Match List I correctly with List II and select your answer using the codes given below:

		•	
	List I		List II
a)	Salbutamol	1.	Enhance GI-mobility
b)	Tolazoline	2.	Stimulate heart rate
c)	Propranolol	3.	Bronchodilator
d)	Isoprenaline	4.	Suppress ventricular tachycardia
Codes:			

	a	, b	C,	d
A)	3	1	4	2
B)	2	1	4	3
C)	4	1	2	3
ומ	.		4	,