Total No. of Printed Pages: 13

Sr. No.

## (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

# Α

### PG-EE-July, 2025

SET-Y

10041

**SUBJECT: Pharmaceutical Science** 

Fime : 1¼ Hours Roll No. (in figures)	Max. Marks : <b>100</b>	Total Questions : 100
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ather's Name	Mother's Name	
Date of Examination		
(Signature of the Candidate)		(Signature of the Invigilator)

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PG-EE-July, 2025/(Pharmaceutical Science)(SET-Y)/(A)

SEAL

		1
1.	pleasant-smelling compound: (1) Terpenoids	as perfumery. Which of the following are the  (2) Glycosides  (4) Resins
2.	breathing? (1) Ephedrine (3) Strychnine	ch of the following drug help may help case his  (2) Ergotamine  (4) Brucine
3.	Which of the following formulations up of shelf life in D and C Act?  (1) Asava & Arishta  (3) Ghutika	nder ASU system are offered an infinite period  (2) Churna  (4) Kwatha
4.	Which of the following alkaloids has hy (1) Reserpine (3) Emetine	(2) Quinine (4) Papaverine
<b>5.</b>	Silica gel G contains which of the follo (1) Starch (3) Cellulose	wing binder ? (2) Gelatin (4) Gypsum
6.	Plant tissue culture has potential role in (1) Secondary metabolite production (3) Genetic mapping	<ul><li>(a) Biotransformation</li><li>(4) Micropropagation</li></ul>
7.	'Candelabra' trichomes are present in : (1) Verbascum thapsus (3) Senna angustifolia	<ul><li>(2) Digitalis purpurea</li><li>(4) Helicterisisora</li></ul>
8	Relation between ester value, saponification Value = Saponification Value (2) Ester Value = Saponification Value (3) Ester Value = Acid Value - Saponification Value = Saponification V	ne + Acid Value ne - Acid Value nification Value

(1) Diacytic

(3) Anisocytic

**9.** Which of the following is *not* a dicotyledonous type of stomata?

(2) Moss

(4) Rubiaceous

10.	Match the following: Alkaloids Chemical Constitutes:				
	(a) C	inchona ·	(1)	Reserp	ine
	(b) O	pium	(2)	Quinin	e
	(c) E	rgot	(3)	Ergom	etrine
	(d) R	auwolfia	(4)	Morph	ine
	(e) N	ux vomica	(5)	Strychi	nine
	(1) a-2,	b-4, c-3, d-1, e-5		(2)	a-4, b-1, c-3, d-2, e-5
	(3) a-2,	b-3, c-4, d-5, e-1		(4)	a-2, b-4, c-3, d-5, e-1
11.	Vitali m	orin reaction is for:			
	(1) Datu	ıra		(2)	Stramonium
	(3) Dub	oisia		(4)	All of the above
12.	Which o	f the following does n	ot cont	ain stere	oidal alkaloids ?
		wagandha			Ephedra
	(3) Kuro	chi		(4)	Veratrum
13.	The char	racteristic odour of gar	lic is a	ttributed	to:
	(1) Que	rcetin glycoside			
	(2) Furd	stanol glycoside			
	(3) Hete	rogeneous sulphated p	oolysac	charides	
	(4) Dial	lylthiosulfinate			
14.	Match th	e following:			
	Alkaloid	s with their chemical of	class		
	(a) A	cointe	(1)	Diterpe	ne
	(b) E <sub>1</sub>	ohedrine	(2)	Piperidi	ne
	(c) Lo	obeline	(3)	Amino	alkaloids
	(d) Ei	gometrine	(4)	Indole a	lkaloids
	(e) H	ygrine	(5)	Pyrrolid	line
	(1) a-1,	b-3, c-2, d-4, e-5		(2)	a-1, b-5, c-2, d-4, e-3
	(3) a-5, 1	b-3, c-2, d-4, e-1		(4)	a-1, b-2, c-3, d-5, e-4
15.	Tropane	alkaloids are biosynth	esized	from	•••••••••••••
	(1) Orni	thine		(2)	Phenylalanine
	(3) Lysin	ne		(4)	Γryptophan

16.	(1) Tuberculosis (2) I	imes for the treatment of which disease? Leprosy Diabetes
17.	(1) Ascorbic acid esters (2) S	roduct is: Sodium bisulphate EDTA
18.	The above formula is known as in  (1) Clark's formula  (2) I	
19.	(1) Flow through cell (2)	Paddle type apparatus Paddle over disk apparatus
20.	<ol> <li>Indicate which of the following statements is a (1) A weakly acidic drug is unionised when below its pKa.</li> <li>Acidic drugs are non-ionized at pH 9.</li> <li>Acidic drugs are less soluble in alkaline s</li> <li>The higher the pKa of a weak acid, the statements is a continuous point of the pKa of a weak acid, the statements is a continuous property.</li> </ol>	pH of the solution is at least 2 pH units olution.
21.	(1) Compressibility index (2)	operty of powder : Hausner's ratio Bulk density
22.	(1) Poor (2)	ne type of powder flow is : Excellent Good
23	23. According to IP/BP very fine powder is one of (1) All particles pass through 120# sieve (2) 90% particles pass through 350# sieve (3) All particles pass through 350 # sieve (4) 90% particles are of size <10 µm.	of which:

24.	One of the following mills works on both the principles of interparticulate attrition and impact:			
	(1) Cutter mill	(2) Hammer mill		
	(3) Roller mill	(4) Fluid energy mill		
25.	Which of the following causes sticking problem?			
	(1) Stearic acid	(2) PVP		
	(3) Lactose	(4) Cellulose		
26.	The following is the filling principle in	the capsule-filling machine except:		
	(1) Auger filling	(2) Vibratory principle		
	(3) Dosator principle	(4) Hopper filling		
27.	cricci are.	elease the drug at a desired time for prolonged		
	(1) Multi-Compressed tablets	(2) Multilayer tablet		
	(3) Enteric-coated tablets	(4) Sustained action tablets		
28.	As per IP, the percentage of sucrose in s	imple syrup is:		
	(1) 56% w/w (3) 66.7% w/w	(2) 66.7% w/v		
20		(4) 85% w/w		
29.	Influence of temperature on drug decom (1) Arrhenius equation	·		
,	(3) Langmuir's isotherm	(2) Rutherford's equation		
30.		(4) BET equation		
	Shelf life of a product is the time lapse of (1) 50% drug degradation			
	(3) 90 % of the drug retained	<ul><li>(2) 90% of the degradation</li><li>(4) None</li></ul>		
31.	Humectants means:			
	(1) It reduces the particle size of the po-	wder material		
	(2) It is used to increase the thickness o	f the ointment		
	(3) It is used to prevent the drying of the cream			
	(4) It is used to increase the spread 1 of	the coat over tablet		
32.	Zanasi instrument is used for:			
	(1) To determine particle size	(2) To determine the rheology of semisolids		
	(3) For tablet coating	(4) Capsule machine		

33.	is widely used in chewable to	blets.
	(1) Starch	(2) Mannitol
	(3) Lactose	(4) PVP
34.	Water attack test is used to identify the a	ılkalinity in :
	(1) Type-I glass	(2) Type-II glass
	(3) Type-III glass	(4) All the 3 types
35.	Class 100 area means:	
	(1) Grade A area	(2) Grade B area
	(3) Grade C area	(4) Grade D area
36.	Spurious drug comes under:	
	(1) Section 17	(2) Section 17A
	(3) Section 17B	(4) Section 3B
37.	"Kala jadu or Kavach" comes under:	
	(1) Schedule J	(2) Schedule K
	(3) Schedule L	(4) Schedule P
38.	The schedule in Drug and Cosmetics A clinical trial, import and manufacture of	et that deals with requirement and guidelines of new drug is:
	(1) Schedule O	(2) Schedule M
	(3) Schedule F	(4) Schedule Y
39.	As per D and C Act "Schedule N" is rela	ated with:
	(1) List of maximum equipments for ef	ficiently running pharmacy
	(2) Area for opening retail pharmacy	
	(3) List of minimum equipment for effi	
	(4) Area required to open wholesale dra	ig store
40.	Which of the following is prohibited to	be imported?
	(1) Toilet preparations	(2) Ayurvedic drugs
	(3) Schedule 'C' and 'G' drugs	(4) Misbranded drugs
41.	Hatch Waxman Act is related to:	
	(1) Banned drugs	(2) Over-the-counter-drugs
	(3) Dangerous drugs	(4) Generic drugs
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42.	Post marketing Surveillance comes under clinical trial:		
	(1) Phase I (2) Phase II		
	(3) Phase III (4) Phase V		
43.	A blend between Tween 20 and Span 20 form type of emulsion.		
	(1) $O/W$ (2) $W/O$		
	(3) Milky (4) Multiple emulsions		
44.	Shrinkage of gel by extrusion of liquid is called:		
	(1) Syneresis (2) Dilatancy		
	(3) Plasticity (4) Ebullition		
45.	CARBOWAX is a type of:		
	(1) Absorption base '(2) Modern ointment		
	(3) Water-soluble bases (4) Oleaginous and hydrocarbon		
46.	Match the following drugs with alteration they produce in the structural-functional of the kidney:		
	(1) Aminoglycoside (a) Glomerular antibiotics abnormality		
	(2) ACE inhibitors (b) Tubular epithelial cell damage		
	(3) Methotrexate (c) Hemodynamically mediated kidney injury		
	(4) NSAIDs (d) Obstructive nephropathy		
	(1) 1-b, 2-c, 3-d, 4-a (2) 1-a, 2-b, 3-c, 4-d		
	(3) 1-c, 2-d, 3-a, 4-b (4) 1-d, 2-a, 3-b, 4-c		
47.	Clavulanic acid is:		
	(1) Inactivates bacterial β-lactamase		
	(2) Potent inhibitor of peptidoglycan synthesis		
	(3) Specific for gram negative bacteria		
	(4) Inhibitor of 50S ribosomal subunit		
48.	Bioassays are carried out to:		
	(1) Measure the pharmacological activity of a drug		
	(2) Avoid clinical trials for new drugs		

(4) Screen from pharmacogenetic influences of new drugs

(3) Detect the impurity in a given drug

49.	Which of the following is CYP450 enzyr	ne i	nhibitor ?		
	(1) Grape juice	(2)	Rifampicin		
	(3) Barbiturates	(4)	Carbamazepine		
50.	Most common Phase-II reaction is:				
	(1) Sulfate conjugation	(2)	Glucuronide conjugation		
	(3) α amino acid conjugation	(4)	Methylation		
51.	M2 receptor is responsible for following [P] Cardiac inhibition	effe	cts:		
	[Q] Neural inhibition				
	[R] Gastric secretion				
	<ul><li>[S] Vasodilatation</li><li>(1) P and Q</li></ul>	(2)	P and R		
	(3) R and S	` ,	Q and R		
52.	Neostigmine may cause all of the follow (1) Block accommodation reflex (2) Reversible inhibition of acetylcholin (3) Constipation (4) Propohagonstriction		•		
	(4) Bronchoconstriction				
53.	Atropine overdose may causes all of the				
	(1) Miosis (2) Relevation of CIT are eath reveals	3	Increased heart rate		
	(3) Relaxation of GIT smooth muscle	(4)	Mental aberration		
54.	Receptors for steroid hormones can be f				
	(1) Plasma membrane		Cytosol		
	(3) Mitochondria	(4)	Ribosomes		
55.	The binding of insulin to the insulin received.  (1) The interaction of the receptor with.  (2) The activation of adenylyl cyclase.  (3) The activation of phospholipase C.	•			
	(4) Tyrosine Kinase activity				
56.		cue	consitivity to insulin 9		
50.	Which of the following increases the tis (1) Acarbose		Gliclazide		
	(3) Rosiglitazone	` '	) Metformine		
PG-F	EE-July, 2025/(Pharmaceutical Science)	(SE	Γ-Y)/(A)	1"	P. T. C

57.	Mechanism of action of antithrombotic (1) Conversion of plasminogen to plasm (2) Activation of clotting factors (3) Inhibition of platelet function (4) Agonist of vitamin K	
58.	Carbidopa is useful in the treatment of F (1) Is a precursor of L-dopa (2) Prevents the breakdown of dopamin (3) Promotes the increased concentration (4) Can readily penetrate the CNS	e
59.	Side effects of phenothiazines include at (1) Blood dyscrasias (3) Orthostatic hypotension	ll <i>except</i> :  (2) Obstructive jaundice  (4) Increased GIT motility
60.	The action of penicillin requires the pres (1) Proteoglycans (3) N-acetyl glucosamine	•
61.	Which of the following is <i>true</i> for dapso (1) Not much used due to toxicity (2) Inhibits folate synthesis in bacteria (3) Is reduced by intestinal bacteria to a (4) Is reduced by intestinal bacteria to a	salicylate
62.		n M. Bovis n M. Africanum n M. Tuberculosis
63.	Crohn's disease affects part.  (1) Gastrointestinal tract  (3) Lung	(2) Kidney (4) Heart
64. PG-EI	Which of the following antihyperlipide by blocking HMG Co-A reductase?  (1) Clofibrate  (3) Probucol  E-July, 2025/(Pharmaceutical Science)(	mic drugs inhibits the synthesis of cholestero  (2) Pravastatin  (4) Nicotinic acid
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65.	An organism which has been implicate peptic ulcer is:	d as a possible cause of chronic gastritis and
	<ul><li>(1) Campylobacter jejuni</li><li>(3) Helicobacter pylori</li></ul>	<ul><li>(2) Escherichia coli</li><li>(4) Giardia lamblia</li></ul>
66.	The mechanism of action of rifampicin is (1) Inhibition of bacterial DNA directed (2) Inhibition of mycolic acid synthesis (3) Inhibition of protein synthesis (4) Inhibition of transpeptidase	
67.	Haloperidol is a major tranquilizer. It be (1) Carbamates (3) Butyrophenone	ongs to the class of:  (2) Propanediol  (4) Phenothiazine
68.	The neurotransmitter is released at the sy (1) Epinephrine (3) Acetylcholine	mpathetic nerve fiber is:  (2) Nor-epinephrine  (4) Physostigmine
69.	Vinblastine and Vincristine act by:  (1) Interfering with synthesis of transfer  (2) Inhibition of fragmentation of DNA  (3) Binding to protein  (4) Incorporating into folic acid metabol	
70.	The hypotensive effect of clonidine is d (1) Beta-adrenergic receptor (3) H1-receptor	ue to its action on:  (2) Alpha-adrenergic receptor  (4) H2-receptor
71.	All statements are correct for SN-1 reaction (1) Follows first-order kinetic (2) Rearrangement is possible (3) Inversion of configuration takes plate (4) Two-step reaction	
72.	Which of the following techniques compounds?  (1) UV visible spectroscopy  (3) Flourimetry	is used to detect the hydrogen bonding in  (2) Infrared  (4) Colorimetry

PG-EE-July, 2025/(Pharmaceutical Science)(SET-Y)/(A)

73	<ul><li>Which of the following bonds wou</li><li>(1) Carbon-hydrogen</li><li>(3) Nitrogen-hydrogen</li></ul>	ld show the strongest absorption in the IR?  (2) Oxygen-hydrogen  (4) Sulfur-hydrogen
74	4. Which of the following sequences is order?	is the <i>correct</i> order of C=O stretching in descending
	<ul><li>(1) Ester, ketone, acid, amide</li><li>(3) Ester, ketone, amide, acid</li></ul>	<ul><li>(2) Acid, amide, ketone, ester</li><li>(4) Amide, acid, ketone, ester</li></ul>
75	<ul><li>Reference compound used in NMR</li><li>(1) Silane</li><li>(3) Dimethylsilane</li></ul>	spectroscopy is:  (2) Trimethylsilane  (4) Tetramethylsilane
76.	<ul><li>Number of NMR signal generated b</li><li>(1) 2</li><li>(3) 3</li></ul>	y acetone is: (2) 6 (4) 1
77.	<ul><li>The reference electrode in potention</li><li>(1) Dropping mercury electrode</li><li>(3) Platinum electrode</li></ul>	(2) Saturated calomel electrode (4) Glass electrode
78.	Purity of water is determined by: (1) Conductometer (3) Potentiometer	(2) HPLC (4) UV
79.	In chromatography if column length decreases, then:  (1) Peak width increases  (2) Column separation efficiency decreases  (3) Number of theoretical plate decreases  (4) Column separation efficiency increases	eases
80.	Bathochromic shift involves:  (1) Increase in intensity of absorption (2) Decrease in intensity of absorption (3) Increase in wavelength of maxim (4) Decrease in wavelength of maxim	on num absorption
	When a molecule is excited by the all state by losing its excess of energy em (1) Phosphorescence (3) Electron emission	bsorption of radiation it soon returns to its ground litted as radiation. This phenomenon is known as:  (2) Bathochromic shift  (4) Fluorescence

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82.	A test to evaluate the detoxifying function	n of	liver is:
	(1) Serum albumin : globulin ratio	(2)	Galactose tolerance test
	(3) Hippuric acid test	(4)	Prothrombin time
83.	The deficiency of folate causes:		
	(1) Pernicious anaemia	(2)	Megaloblastic anaemia
	(3) Macrocytic anaemia	(4)	Hemolytic anaemia
84.	Glucose absorption is promoted by:		
•	(1) Vitamin A	(2)	Vitamin E
	(3) Ascorbic acid	` ′	Thiamine
85.	'Lock and key' theory was proposed by:	. ,	
00.	(1) Koshland	(2)	Emil Fischer
	(3) Mehler	` '	Sanger
86.		. 41.	de la companya de la
00.	Generation of ATP during citric acid cyc (1) 8	(2)	
	(3) 24	(4)	
	•	` ,	
87.	Which of the following is a $\beta$ -lactam ant		
	(1) Penicillin + cephalosporin		Streptomycin + gentamicin
	(3) Minocycline + doxycycline	(4)	Chloramphenicol
88.	Which of the following is <i>not</i> a synthetic	dru	g ?
	(1) Isoniazid	(2)	Rifampin
	(3) Pyrazinamide	(4)	Ethionamide
89.	Increased risk of atherosclerosis is assoc	iatec	with decreased serum level of:
	(1) LDL		HDL
	(3) Triglyceride	(4)	VLDL
90.	Milk of magnesia is:		
	(1) Hydrated magnesium silicate	(2)	Hydrated magnesium oxide
	(3) Dehydrated magnesium hydroxide		Hydrated magnesium hydroxide
91.		, ,	
J1.	As per IP., limit of sulphate as impurity if		•
			7.7
	(1) 10 ppm (3) 25 ppm		20 ppm 15 ppm

92.	Give an example of the non-absorbable	nntacids:
	(1) Aluminium hydroxide	(2) Calcium carbonate
	(3) Tribasic calcium phosphate	(4) Sodium bicarbonate
93.	Antiflatulent compounds are used with to (1) To maintain the pH of GIT (2) To dispense the foam (3) To avoid the interaction with absorp (4) To minimize the effect of evolved C	tion of metals
94.	As per B.P. (British Pharmacopoeia), sulphate? (1) Barium chloride solution (3) Lead acetate solution	which reagent is used for the limit test of  (2) Silver nitrate solution  (4) Ammonium oxalate solution
95.	Which of the following is an example of (1) Lidocaine (3) Diazepam	<ul><li>a local anesthetic drug?</li><li>(2) Ibuprofen</li><li>(4) Atropine</li></ul>
96.	The IUPAC name of Paracetamol is: (1) N-Acetyl-p-aminophenol (3) 2-Acetoxybenzoic acid	<ul><li>(2) 4-Hydroxyacetanilide</li><li>(4) 4-Aminobenzoic acid</li></ul>
97.	Which steroid ring system is present in continuous (1) Phenanthrene (3) Benzodiazepine	orticosteroids? (2) Cyclopentanoperhydrophenanthrene (4) Purine
98.	The chemical test used to identify barbit (1) Liebermann's test (3) Fehling's test	rates involves :  (2) Zwikker's test (pyridine + CuSO <sub>4</sub> )  (4) Ninhydrin test
99.	Which functional group is responsible for (1) Ester (3) Hydroxyl (-OH)	r the acidic property of aspirin ?  (2) Carboxylic acid (–COOH)  (4) Amide (–CONH <sub>2</sub> )
100.	The lead compound for the development (1) Penicillin (3) Salvarsan	of sulfa drugs was : (2) Prontosil (4) Quinine

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# В

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SET-Y

**SUBJECT: Pharmaceutical Science** 

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Total Questions : 100
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PG-EE-July, 2025/(Pharmaceutical Science)(SET-Y)/(B)

1.	Vitali morin reaction		* ,	
	(1) Datura	(2) Stramonium	(3) Duboisia	(4) All of the above
2.	Which of the follow	wing does <i>not</i> cont	ain steroidal alkaloic	ls ?
	(1) Ashwagandha		(3) Kurchi	(4) Veratrum
3.	The characteristic (1) Quercetin glyc (2) Furostanol gly (3) Heterogeneous (4) Diallylthiosulf	oside coside sulphated polysac		
4.	Match the following	ıg:		
	Alkaloids with the	_		
	(a) Acointe	(1)	Diterpene	
	(b) Ephedrine	(2)	Piperidine	
	(c) Lobeline	(3)	Amino alkaloids	
	(d) Ergometrine	e (4)	Indole alkaloids	
	(e) Hygrine	(5)	Pyrrolidine	
	(1) a-1, b-3, c-2, d	-4, e-5	(2) a-1, b-5, c-2	, d-4, e-3
	(3) a-5, b-3, c-2, d	-4, c-1	(4) a-1, b-2, c-3	, d-5, c-4
5.	Tropane alkaloids	are biosynthesized	from	
	(1) Ornithine	(2) Phenylalanir		(4) Tryptophan
6.	Chaulmoogra oil h	as been used since	ancient times for the	treatment of which disease?
	(1) Tuberculosis		(2) Leprosy	
	(3) Malaria		(4) Diabetes	
7.	Antioxidant used a	s blocking agent ir	sterile product is :	
	(1) Ascorbic acid		(2) Sodium bisu	Ilphate
	(3) Ascorbic acid		(4) EDTA	
8.	(Weight in pounds	/150)* Adult Dose	= Child dose	
			in Posology.	
	(1) Clark's formul		(2) Dillings for	nula
	(3) Youngs formu	la	(4) Frieds form	

9.	Type IV dissolution apparatus as per USP is:	
		Paddle type apparatus
	(3) Reciprocating cylinder (4)	Paddle over disk apparatus
10.	Indicate which of the following statements is (1) A weakly acidic drug is unionised when	true: pH of the solution is at least 2 pH units
	below its pKa.	
	(2) Acidic drugs are non-ionized at pH 9.	
	(3) Acidic drugs are less soluble in alkaline s	
	(4) The higher the pKa of a weak acid, the st	
11.	-	
	(1) 10 ppm (2) 20 ppm (3)	25 ppm (4) 15 ppm
12.		
	(-)	Calcium carbonate
		Sodium bicarbonate
13.	•	atacids for which purpose?
	(1) To maintain the pH of GIT	
	<ul><li>(2) To dispense the foam</li><li>(3) To avoid the interaction with absorption</li></ul>	of metals
	(4) To minimize the effect of evolved CO <sub>2</sub>	
14.	The state of the sales are the sales are	ch reagent is used for the limit test of
		Silver nitrate solution
	,	Ammonium oxalate solution
15.	5. Which of the following is an example of a lo	cal anesthetic drug?
	(1) Lidocaine (2) Ibuprofen (3)	Diazepam (4) Atropine
16.	6. The IUPAC name of Paracetamol is:	
	(1) N-Acetyl-p-aminophenol (2)	4-Hydroxyacetanilide
	(3) 2-Acetoxybenzoic acid (4)	4-Aminobenzoic acid
17.	7. Which steroid ring system is present in corti	costeroids?
	(1) Phenanthrene (2)	Cyclopentanoperhydrophenanthrene
	(3) Benzodiazepine (4)	Purine
PG-I	G-EE-July, 2025/(Pharmaceutical Science)(SET	C-Y)/(B)

18.	The chemical test used to identify barbit (1) Liebermann's test (3) Fehling's test	turates involves :  (2) Zwikker's test (pyridine + CuSO <sub>4</sub> )  (4) Ninhydrin test
19.	Which functional group is responsible for (1) Ester (3) Hydroxyl (-OH)	or the acidic property of aspirin?  (2) Carboxylic acid (–COOH)  (4) Amide (–CONH <sub>2</sub> )
20.	The lead compound for the development (1) Penicillin (2) Prontosil	t of sulfa drugs was : (3) Salvarsan (4) Quinine
21.	All statements are correct for SN-1 react (1) Follows first-order kinetic (2) Rearrangement is possible (3) Inversion of configuration takes place (4) Two-step reaction	
22.	Which of the following techniques compounds?  (1) UV visible spectroscopy  (3) Flourimetry	is used to detect the hydrogen bonding in (2) Infrared (4) Colorimetry
23.	Which of the following bonds would sho (1) Carbon-hydrogen (3) Nitrogen-hydrogen	ow the strongest absorption in the IR?  (2) Oxygen-hydrogen  (4) Sulfur-hydrogen
24.	Which of the following sequences is the order? (1) Ester, ketone, acid, amide (3) Ester, ketone, amide, acid	<ul><li>correct order of C=O stretching in descending</li><li>(2) Acid, amide, ketone, ester</li><li>(4) Amide, acid, ketone, ester</li></ul>
25.	Reference compound used in NMR spec (1) Silane (3) Dimethylsilane	troscopy is :  (2) Trimethylsilane  (4) Tetramethylsilane
26.	Number of NMR signal generated by acc (1) 2 (2) 6	etone is: (3) 3 (4) 1
27.	The reference electrode in potentiometry  (1) Dropping mercury electrode  (3) Platinum electrode	is

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(4) Ribosomes

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35.	The binding of insulin to the insulin rece (1) The interaction of the receptor with (2) The activation of adenylyl cyclase (3) The activation of phospholipase C (4) Tyrosine Kinase activity		
36.	Which of the following increases the tiss (1) Acarbose (3) Rosiglitazone	ue sensitivity to insulin? (2) Gliclazide (4) Metformine	
37.	Mechanism of action of antithrombotic at (1) Conversion of plasminogen to plasminogen to plasminogen (2) Activation of clotting factors (3) Inhibition of platelet function (4) Agonist of vitamin K	gent is : in	
38.	Carbidopa is useful in the treatment of P  (1) Is a precursor of L-dopa  (2) Prevents the breakdown of dopamine  (3) Promotes the increased concentration  (4) Can readily penetrate the CNS	<b>:</b>	
39.	Side effects of phenothiazines include al (1) Blood dyscrasias (3) Orthostatic hypotension	l except: (2) Obstructive jaundice (4) Increased GIT motility	
40.	The action of penicillin requires the pres (1) Proteoglycans (3) N-acetyl glucosamine	ence of cell wall that contains :  (2) Peptidoglycans  (4) N-acetyl muramic acid	
41.	Humectants means:  (1) It reduces the particle size of the power.  (2) It is used to increase the thickness of the drying of the comparison of the comparison of the comparison of the comparison.	the ointment cream	
42.		<ul><li>(2) To determine the rheology of semis</li><li>(4) Capsule machine</li></ul>	solids
PG-E	E-July, 2025/(Pharmaceutical Science)(S	SET-Y)/(B)	P. T. O.

43.	is widely used in chewa	able tablets.
	(1) Starch	(2) Mannitol
	(3) Lactose	(4) PVP
44.	Water attack test is used to identif	y the alkalinity in :
44.	(1) Type-I glass	(2) Type-II glass
	(3) Type-III glass	(4) All the 3 types
45.	Class 100 area means:	(2) Grade B area
	<ul><li>(1) Grade A area</li><li>(3) Grade C area</li></ul>	(4) Grade D area
46.	Spurious drug comes under:	(2) Section 17A
	(1) Section 17	(4) Section 3B
	(3) Section 17B	
47.	"Kala jadu or Kavach," comes und	
	(1) Schedule J	(2) Schedule K
	(3) Schedule L	(4) Schedule P
48.	The schedule in Drug and Cosm	etics Act that deals with requirement and guidelines of
	clinical trial, import and manufac	
	(1) Schedule O	<ul><li>(2) Schedule M</li><li>(4) Schedule Y</li></ul>
	(3) Schedule F	
49.		
		s for efficiently running pharmacy
	(2) Area for opening retail pharman	
	. ,	for efficiently running pharmacy
	(4) Area required to open whole	
50		
	(1) Toilet preparations	(2) Ayurvedic drugs
,	(3) Schedule 'C' and 'G' drugs	(4) Misbranded drugs
51	. Following is <i>not</i> used as a meas	ure of flow property of powder:
	(1) Compressibility index	(2) Hausner's ratio
	(3) Angle of repose  FF-July 2025/(Pharmaceutical S	(4) Bulk density
P(	e e _ muy /m/5/renarmacemucal S	CICHCORNE ITTIUDI

52.	If the Carr's index of a powder is 10%, to (1) Poor	hen the type of powder flow is:  (2) Excellent
	(3) Very poor	(4) Good
53.	According to IP/BP very fine powder is (1) All particles pass through 120# siev (2) 90% particles pass through 350# siev (3) All particles pass through 350 # siev (4) 90% particles are of size <10 μm	e ve
54.	One of the following mills works on bo impact:  (1) Cutter mill  (3) Roller mill	th the principles of interparticulate attrition and  (2) Hammer mill  (4) Fluid energy mill
55.	Which of the following causes sticking particles (1) Stearic acid (3) Lactose	
56.	The following is the filling principle in t (1) Auger filling (3) Dosator principle	he capsule-filling machine <i>except</i> :  (2) Vibratory principle  (4) Hopper filling
57.	Tablets that after oral administration re effect are:  (1) Multi-Compressed tablets  (3) Enteric-coated tablets	lease the drug at a desired time for prolonged  (2) Multilayer tablet  (4) Sustained action tablets
58.	As per IP, the percentage of sucrose in s (1) 56% w/w (3) 66.7% w/w	imple syrup is : (2) 66.7% w/v (4) 85% w/w
59.	Influence of temperature on drug decom (1) Arrhenius equation (3) Langmuir's isotherm	position is expressed by :  (2) Rutherford's equation  (4) BET equation
60.	Shelf life of a product is the time lapse d (1) 50% drug degradation (3) 90 % of the drug retained	uring which allowed is the : (2) 90% of the degradation (4) None
PG-E	E-July, 2025/(Pharmaceutical Science)(S	SET-Y)/(B) P. T. O.

61.	Hatch Waxman Act is related	to:	
	(1) Banned drugs		(2) Over-the-counter-drugs
	(3) Dangerous drugs		(4) Generic drugs
62.	Post marketing Surveillance comes under clinical trial:		
	(1) Phase I		(2) Phase II
	(3) Phase III		(4) Phase V
63. A blend between Tween 20 and Span 20 form type of emulsion.			oan 20 form type of emulsion.
	(1) O/W		(2) W/O
	(3) Milky.		(4) Multiple emulsions
64. Shrinkage of gel by extrusion of liquid is called:			quid is called:
•	(1) Syneresis		(2) Dilatancy
	(3) Plasticity		(4) Ebullition
65. CARBOWAX is a type of:			
	(1) Absorption base		(2) Modern ointment
	(3) Water-soluble bases		(4) Oleaginous and hydrocarbon
<b>66.</b> Match the following drugs with alteration they produce in the structural-the kidney:		alteration they produce in the structural-functional of	
	(1) Aminoglycoside	(a)	Glomerular antibiotics abnormality
	(2) ACE inhibitors	(b)	Tubular epithelial cell damage
	(3) Methotrexate	(c)	Hemodynamically mediated kidney injury
	(4) NSAIDs	(d)	Obstructive nephropathy
	(1) 1-b, 2-c, 3-d, 4-a		(2) 1-a, 2-b, 3-c, 4-d
	(3) 1-c, 2-d, 3-a, 4-b		(4) 1-d, 2-a, 3-b, 4-c
67.	Clavulanic acid is:		
	(1) Inactivates bacterial β-lactamase		
	(2) Potent inhibitor of peptidoglycan synthesis		
	(3) Specific for gram negative bacteria		
	(4) Inhibitor of 50S ribosomal subunit		

68.	Bioassays are carried out to:			
	(1) Measure the pharmacological activity of a drug			
	(2) Avoid clinical trials for new drug			
	(3) Detect the impurity in a given drug	<del>-</del> .		
	(4) Screen from pharmacogenetic in	fluences of new drugs		
69.	Which of the following is CYP450 enzyme inhibitor?			
	(1) Grape juice	(2) Rifampicin		
	(3) Barbiturates	(4) Carbamazepine		
70.	Most common Phase-II reaction is:	Most common Phase-II reaction is:		
	(1) Sulfate conjugation	(2) Glucuronide conjugation		
	(3) α amino acid conjugation	(4) Methylation		
71.	Which of the following is <i>true</i> for day (1) Not much used due to toxicity (2) Inhibits folate synthesis in bacter (3) Is reduced by intestinal bacteria t (4) Is reduced by intestinal bacteria t	ia o a salicylate		
72.	BCG vaccine contains:  (1) A live-attenuated strain derived for the	rom M. Africanum rom M. Tuberculosis		
73.	Crohn's disease affects part			
	(1) Gastrointestinal tract	(2) Kidney		
	(3) Lung	(4) Heart		
74.	by blocking HMG Co-A reductase?	idemic drugs inhibits the synthesis of cholesterol		
	(1) Clofibrate	(2) Pravastatin		
	(3) Probucol	(4) Nicotinic acid		
75.	peptic ulcer is:	cated as a possible cause of chronic gastritis and		
	(1) Campylobacter jejuni	(2) Escherichia coli		
	(3) Helicobacter pylori	(4) Giardia lamblia		
PG-E	E-July, 2025/(Pharmaceutical Science	e)(SET-Y)/(B) P. T. C		

P

76.	The mechanism of action of rifamp (1) Inhibition of bacterial DNA dir (2) Inhibition of mycolic acid synt (3) Inhibition of protein synthesis (4) Inhibition of transpeptidase	ected RNA polymerase	
77.	Haloperidol is a major tranquilizer.	It belongs to the class of:	
	(1) Carbamates	(2) Propanediol	
	(3) Butyrophenone	(4) Phenothiazine	
78.	The neurotransmitter is released at	the sympathetic nerve fiber is:	
	(1) Epinephrine	(2) Nor-epinephrine	
	(3) Acetylcholine	(4) Physostigmine	
79.	Vinblastine and Vincristine act by (1) Interfering with synthesis of tra (2) Inhibition of fragmentation of (3) Binding to protein (4) Incorporating into folic acid m	ansfer RNA DNA	
80.	The hypotensive effect of clonidine is due to its action on:		
	(1) Beta-adrenergic receptor	(2) Alpha-adrenergic receptor	
	(3) H1-receptor	(4) H2-receptor	
81.	Volatile oil has huge potential to be pleasant-smelling compound:  (1) Terpenoids  (3) Alkaloids	the used as perfumery. Which of the following are the (2) Glycosides (4) Resins	
82.	A person is suffering from asthma breathing?	. Which of the following drug help may help ease his	
	(1) Ephedrine	(2) Ergotamine	
	(3.) Strychnine	(4) Brucine	
83.	Which of the following formulation of shelf life in D and C Act?	ons under ASU system are offered an infinite period	
	(1) Asava & Arishta	(2) Churna	
	(3) Ghutika	(4) Kwatha	

84.	in a serie of the minimum in the	•
	(1) Reserpine (2) Quinine	(3) Emetine (4) Papaverine
85.	Silica gel G contains which of the follow	ing binder?
	(1) Starch	(2) Gelatin
	(3) Cellulose	(4) Gypsum
86.	Plant tissue culture has potential role in a	
	<ul><li>(1) Secondary metabolite production</li><li>(3) Genetic mapping</li></ul>	<ul><li>(2) Biotransformation</li><li>(4) Micropropagation</li></ul>
87.		(+) Micropropagation
ο.	'Candelabra' trichomes are present in: (1) Verbascum thapsus	(2) Digitalis purpurea
	(3) Senna angustifolia	(4) Helicterisisora
<b>38.</b>	Relation between ester value, saponificat	
	(1) Ester Value = Saponification Value =	
	(2) Ester Value = Saponification Value -	
	(3) Ester Value = Acid Value - Saponifi	
	(4) Ester Value = Saponification Value /	
B9.	Which of the following is <i>not</i> a dicotyled	
	<ul><li>(1) Diacytic</li><li>(3) Anisocytic</li></ul>	<ul><li>(2) Moss</li><li>(4) Rubiaceous</li></ul>
90.	- in the state of	
90.	Match the following: Alkaloids Chemica  (a) Cinchona (1) Res	serpine
		inine
	- 1 i - 5 /0 i - 15:	gometrine
	(d) Rauwolfia (4) Mo	rphine
	(e) Nux vomica (5) Str	ychnine
		(2) a-4, b-1, c-3, d-2, e-5
	(3) a-2, b-3, c-4, d-5, e-1	(4) a-2, b-4, c-3, d-5, e-1
91.		ption of radiation it soon returns to its ground
	(1) Phosphorescence	d as radiation. This phenomenon is known as:  (2) Bathochromic shift
	(3) Electron emission	(4) Fluorescence

92.	A test to evaluate the detoxifying function	
	(1) Serum albumin : globulin ratio	(2) Galactose tolerance test
	(3) Hippuric acid test	(4) Prothrombin time
93.	The deficiency of folate causes:	
	(1) Pernicious anaemia	(2) Megaloblastic anaemia
	(3) Macrocytic anaemia	(4) Hemolytic anaemia
94.	Glucose absorption is promoted by:	
	(1) Vitamin A	(2) Vitamin E
	(3) Ascorbic acid	(4) Thiamine
95.	'Lock and key' theory was proposed by:	
	(1) Koshland	(2) Emil Fischer
	(3) Mehler	(4) Sanger
96.	Generation of ATP during citric acid cyc	cle is :
	(1) 8	(2) 22
	(3) 24	(4) 30
97.	Which of the following is a β-lactam an	tibiotic?
	(1) Penicillin + cephalosporin	(2) Streptomycin + gentamicin
	(3) Minocycline + doxycycline	(4) Chloramphenicol
98.	Which of the following is <i>not</i> a syntheti	c drug ?
	(1) Isoniazid	(2) Rifampin
	(3) Pyrazinamide	(4) Ethionamide
99.	Increased risk of atherosclerosis is associated as a second secon	ciated with decreased serum level of
	(1) LDL	(2) HDL
	(3) Triglyceride	(4) VLDL
100.	Milk of magnesia is:	
	(1) Hydrated magnesium silicate	(2) Hydrated magnesium oxide
	(3) Dehydrated magnesium hydroxide	(4) Hydrated magnesium hydroxide
		•

Total No. of Printed Pages: 13

# (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

# C

#### PG-EE-July, 2025

SET-Y

**SUBJECT: Pharmaceutical Science** 

Sr. No. .....

Time: 11/4 Hours	Max. Marks : 100	Total Questions: 100
Roll No. (in figures)	(in words)	<u></u>
Name	Date of Birth	
Father's Name	Mother's Name	<u> </u>
Date of Examination		
(Signature of the Candidate)		(Signature of the Invigilator)

### CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are compulsory.
- 2. The candidates *must return* the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfairmeans / mis-behaviour will be registered against him / her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- 3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
- 4. Question Booklet along with answer key of all the A, B, C & D code shall be got uploaded on the University Website immediately after the conduct of Entrance Examination. Candidates may raise valid objection/complaint if any, with regard to discrepancy in the question booklet/answer key within 24 hours of uploading the same on the University Website. The complaint be sent by the students to the Controller of Examinations by hand or through email. Thereafter, no complaint in any case, will be considered.
- 5. The candidate *must not* do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers *must not* be ticked in the question booklet.
- 6. There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
- 7. Use only Black or Blue Ball Point Pen of good quality in the OMR Answer-Sheet.
- 8. Before answering the questions, the candidates should ensure that they have been supplied correct and complete booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.

PG-EE-July, 2025/(Pharmaceutical Science)(SET-Y)/(C)

- (3) Specific for gram negative bacteria
- (4) Inhibitor of 50S ribosomal subunit
- **8.** Bioassays are carried out to:
  - (1) Measure the pharmacological activity of a drug
  - (2) Avoid clinical trials for new drugs
  - (3) Detect the impurity in a given drug
  - (4) Screen from pharmacogenetic influences of new drugs

9.	Which of the following is CYP450	enzyme inhibitor?
	(1) Grape juice	(2) Rifampicin
	(3) Barbiturates	(4) Carbamazepine
10.	Most common Phase-II reaction is	Section of the sectio
	(1) Sulfate conjugation	(2) Glucuronide conjugation
	(3) α amino acid conjugation	(4) Methylation
11.	Following is <i>not</i> used as a measure	of flow property of powder:
	(1) Compressibility index	(2) Hausner's ratio
	(3) Angle of repose	(4) Bulk density
12.	If the Carr's index of a powder is 10	0%, then the type of powder flow is:
	(1) Poor	(2) Excellent
,	(3) Very poor	(4) Good
13.	According to IP/BP very fine power	der is one of which:
	(1) All particles pass through 120#	
	(2) 90% particles pass through 350	
	(3) All particles pass through 350	
	(4) 90% particles are of size <10 µ	
14.		on both the principles of interparticulate attrition and
	impact:	(2) Hammer mill
	(1) Cutter mill	<ul><li>(2) Hammer mill</li><li>(4) Fluid energy mill</li></ul>
	(3) Roller mill	. ,
15		
	(1) Stearic acid	<ul><li>(2) PVP</li><li>(4) Cellulose</li></ul>
	(3) Lactose	
16		ole in the capsule-filling machine except:
	(1) Auger filling	(2) Vibratory principle
	(3) Dosator principle	(4) Hopper filling
17	. Tablets that after oral administrate effect are:	ion release the drug at a desired time for prolonged
	(1) Multi-Compressed tablets	(2) Multilayer tablet
	(3) Enteric-coated tablets	(4) Sustained action tablets
PG-	EE-July, 2025/(Pharmaceutical Sci	ence)(SET-Y)/(C)

18.	As per IP, the percentage of sucrose in s	imple syrup is :
	(1) 56% w/w	(2) 66.7% w/v
	(3) 66.7% w/w	(4) 85% w/w
19.	Influence of temperature on drug decom	position is expressed by :
	(1) Arrhenius equation	(2) Rutherford's equation
	(3) Langmuir's isotherm	(4) BET equation
20.	Shelf life of a product is the time lapse d	luring which allowed is the:
	(1) 50% drug degradation	(2) 90% of the degradation
	(3) 90 % of the drug retained	(4) None
21.	Volatile oil has huge potential to be use pleasant-smelling compound:	d as perfumery. Which of the following are the
	(1) Terpenoids	(2) Glycosides
	(3) Alkaloids	(4) Resins
22.	A person is suffering from asthma. Which breathing?	ch of the following drug help may help ease his
	(1) Ephedrine	(2) Ergotamine
	(3) Strychnine	(4) Brucine
23.	Which of the following formulations ur of shelf life in D and C Act?	nder ASU system are offered an infinite period
	(1) Asava & Arishta	(2) Churna
	(3) Ghutika	(4) Kwatha
24.	Which of the following alkaloids has hy	potensive activity?
	(1) Reserpine (2) Quinine	(3) Emetine (4) Papaverine
25.	Silica gel G contains which of the follow	ving binder ?
	(1) Starch (2) Gelatin	(3) Cellulose (4) Gypsum
26.	Plant tissue culture has potential role in	all, except :
	(1) Secondary metabolite production	(2) Biotransformation
	(3) Genetic mapping	(4) Micropropagation
27.	'Candelabra' trichomes are present in:	
-	(1) Verbascum thapsus	(2) Digitalis purpurea
	(3) Senna angustifolia	(4) Helicterisisora
	•	

	<ul> <li>(3) Ester Value = Acid Value - Saponification Value</li> <li>(4) Ester Value = Saponification Value / Acid Value</li> </ul>			
29.	Which of the following is <i>not</i> (1) Diacytic	a dicoty	yledonous type of stomata? (2) Moss	
	(3) Anisocytic		(4) Rubiaceous	
30.	Match the following: Alkaloid	ds Chen	nical Constitutes:	
	(a) Cinchona	(1)	Reserpine	
	(b) Opium	(2)	Quinine	
	(c) Ergot	(3)	Ergometrine	
'	(d) Rauwolfia	(4)	Morphine	
	(e) Nux vomica	(5)	Strychnine	
	(1) a-2, b-4, c-3, d-1, e-5		(2) a-4, b-1, c-3, d-2, e-5	
	(3) a-2, b-3, c-4, d-5, e-1		(4) a-2, b-4, c-3, d-5, e-1	
31.	As per IP., limit of sulphate as	impuri	ty in the pharmaceutical substances is:	
	(1) 10 ppm		(2) 20 ppm	
	(3) 25 ppm		(4) 15 ppm	
32.	Give an example of the non-ab	sorbabl	e antacids:	
	(1) Aluminium hydroxide		(2) Calcium carbonate	
	(3) Tribasic calcium phosphat	e	(4) Sodium bicarbonate	
33.	Antiflatulent compounds are us	sed with	the antacids for which purpose?	
	(1) To maintain the pH of GIT			
	(2) To dispense the foam			
	(3) To avoid the interaction w	ith abso	rption of metals	
	(4) To minimize the effect of e	evolved	$CO_2$	
34.	As per B.P. (British Pharma sulphate?	copoeia	), which reagent is used for the limit test of	•
	(1) Barium chloride solution		(2) Silver nitrate solution	
	(3) Lead acetate solution		(4) Ammonium oxalate solution	
	· · · · · · · · · · · · · · · · · · ·			
C-EF	E-July, 2025/(Pharmaceutical S	Science	)(SFT_V)/(C)	

28. Relation between ester value, saponification value and acid value is:

(1) Ester Value = Saponification Value + Acid Value
 (2) Ester Value = Saponification Value - Acid Value

35.	Which of the following is an example of (1) Lidocaine (3) Diazepam	<ul><li>a local anesthetic drug?</li><li>(2) Ibuprofen</li><li>(4) Atropine</li></ul>	
36.	The IUPAC name of Paracetamol is:  (1) N-Acetyl-p-aminophenol  (3) 2-Acetoxybenzoic acid	<ul><li>(2) 4-Hydroxyacetanilide</li><li>(4) 4-Aminobenzoic acid</li></ul>	
37.	Which steroid ring system is present in co. (1) Phenanthrene (3) Benzodiazepine	orticosteroids?  (2) Cyclopentanoperhydrophenanthrene (4) Purine	
38.	The chemical test used to identify barbit (1) Liebermann's test (3) Fehling's test	urates involves :  (2) Zwikker's test (pyridine + CuSO <sub>4</sub> )  (4) Ninhydrin test	
39.	Which functional group is responsible for (1) Ester (3) Hydroxyl (–OH)	or the acidic property of aspirin?  (2) Carboxylic acid (-COOH)  (4) Amide (-CONH <sub>2</sub> )	
40.	The lead compound for the development (1) Penicillin (3) Salvarsan	of sulfa drugs was :  (2) Prontosil  (4) Quinine	
41.	<ul> <li>Which of the following is <i>true</i> for dapsone?</li> <li>(1) Not much used due to toxicity</li> <li>(2) Inhibits folate synthesis in bacteria</li> <li>(3) Is reduced by intestinal bacteria to a salicylate</li> <li>(4) Is reduced by intestinal bacteria to a sulphonamide</li> </ul>		
42.	<ul> <li>BCG vaccine contains:</li> <li>(1) A live-attenuated strain derived from M. Bovis</li> <li>(2) A live-attenuated strain derived from M. Africanum</li> <li>(3) A live-attenuated strain derived from M. Tuberculosis</li> <li>(4) A dead-attenuated strain derived from M. Africanum</li> </ul>		
43	Crohn's disease affects part.  (1) Gastrointestinal tract  (3) Lung	(2) Kidney (4) Heart	

44.	Which of the following antihyperlipidemic drugs inhibits the synthesis of cholesterol by blocking HMG Co-A reductase?		
	(1) Clofibrate	(2) Pravastatin	
	(3) Probucol	(4) Nicotinic acid	
45.	An organism which has been implicat peptic ulcer is:	ed as a possible cause of chronic gastritis and	
	<ul><li>(1) Campylobacter jejuni</li><li>(3) Helicobacter pylori</li></ul>	<ul><li>(2) Escherichia coli</li><li>(4) Giardia lamblia</li></ul>	
46.	The mechanism of action of rifampicin (1) Inhibition of bacterial DNA directed (2) Inhibition of mycolic acid synthesis	d RNA polymerase	
	<ul><li>(3) Inhibition of protein synthesis</li><li>(4) Inhibition of transpeptidase</li></ul>		
47.	Haloperidol is a major tranquilizer. It be (1) Carbamates (3) Butyrophenone	elongs to the class of:  (2) Propanediol  (4) Phenothiazine	
48.	The neurotransmitter is released at the s	ympathetic nerve fiber is:	
	(1) Epinephrine	(2) Nor-epinephrine	
	(3) Acetylcholine	(4) Physostigmine	
49.	Vinblastine and Vincristine act by :		
	(1) Interfering with synthesis of transfer RNA		
	(2) Inhibition of fragmentation of DNA		
	(3) Binding to protein	15-car	
	(4) Incorporating into folic acid metabo	lism	
50.	The hypotensive effect of clonidine is de		
	(1) Beta-adrenergic receptor	(2) Alpha-adrenergic receptor	
	(3) H1-receptor	(4) H2-receptor	
51.	Humectants means:		
	(1) It reduces the particle size of the port.		
	<ul><li>(2) It is used to increase the thickness of the ointment</li><li>(3) It is used to prevent the drying of the cream</li></ul>		
	(4) It is used to increase the spread 1 of the coat over tablet		
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	<b>52</b> .	Zanasi instrument is used for:		
		(1) To determine particle size	(2)	To determine the rheology of semisolids
		(3) For tablet coating	(4)	Capsule machine
	53.	is widely used in chewable ta	blets	· · · · · · · · · · · · · · · · · · ·
		(1) Starch	(2)	Mannitol
		(3) Lactose	(4)	PVP
	54.	Water attack test is used to identify the a	lkali	nity in :
		(1) Type-I glass		Type-II glass
		(3) Type-III glass	(4)	All the 3 types
	55.	Class 100 area means:		
		(1) Grade A area	(2)	Grade B area
		(3) Grade C area		Grade D area
	56.	Spurious drug comes under:		
	50.	(1) Section 17	(2)	Section 17A
		(3) Section 17B	` ′	Section 3B
	<b>5</b> 7	in the second to the	\ / Z,	
	<b>57</b> .	"Kala jadu or Kavach" comes under:  (1) Schedule J	(2)	Schedule K
		(3) Schedule L		Schedule P
			` ,	
	58.	clinical trial, import and manufacture of		at deals with requirement and guidelines of drug is:
		(1) Schedule O		Schedule M
		(3) Schedule F	(4)	Schedule Y
	59.	As per D and C Act "Schedule N" is rela	ated	with:
	55.	(1) List of maximum equipments for eff		
		(2) Area for opening retail pharmacy		
		(3) List of minimum equipment for efficient	cient	ly running pharmacy
		(4) Area required to open wholesale dru	ıg st	ore
	60.	Which of the following is prohibited to l	be ir	nported?
	501	(1) Toilet preparations		Ayurvedic drugs
		(3) Schedule 'C' and 'G' drugs		Misbranded drugs
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				· · · · · · · · · · · · · · · · · · ·

61.	All statements are correct for SN-1 reaction (1) Follows first-order kinetic (2) Rearrangement is possible (3) Inversion of configuration takes place (4) Two-step reaction	
62.	compounds?  (1) UV visible spectroscopy  (2) Flouring to thing techniques is	s used to detect the hydrogen bonding in  (2) Infrared  (4) Colorimetry
63.	Which of the following bonds would show (1) Carbon-hydrogen (3) Nitrogen bonds	•
64.	Which of the following sequences is the order?  (1) Ester, ketone, acid, amide	correct order of C=O stretching in descending  (2) Acid, amide, ketone, ester  (4) Amide, acid, ketone, ester
65.	Reference compound used in NMR spectre (1) Silane	
66.	Number of NMR signal generated by aces (1) 2	-
67.	The reference electrode in potentiometry (1) Dropping mercury electrode (3) Platinum electrode	is
68.	Purity of water is determined by: (1) Conductometer	(2) HPLC (4) UV
69.	In chromatography if column length is decreases, then:  (1) Peak width increases  (2) Column separation efficiency decrease  (3) Number of theoretical plate decreases  (4) Column separation efficiency increases	

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70.	Bathochromic shift involves:  (1) Increase in intensity of absorption (2) Decrease in intensity of absorption (3) Increase in wavelength of maximum (4) Decrease in wavelength of maximum		
71.	state by losing its excess of energy emitt	ed as	on of radiation it soon returns to its ground radiation. This phenomenon is known as:
	(1) Phosphorescence	` '	Bathochromic shift
	(3) Electron emission	` ,	Fluorescence
72.	A test to evaluate the detoxifying functi		
	(1) Serum albumin : globulin ratio		Galactose tolerance test
	(3) Hippuric acid test	(4)	Prothrombin time
73.	The deficiency of folate causes:		
	(1) Pernicious anaemia	, ,	Megaloblastic anaemia
	(3) Macrocytic anaemia	(4)	Hemolytic anaemia
74.	Glucose absorption is promoted by:		
	(1) Vitamin A		Vitamin E
	(3) Ascorbic acid	(4)	Thiamine
75.	'Lock and key' theory was proposed by		
	(1) Koshland		Emil Fischer
	(3) Mehler	(4)	Sanger
76.	Generation of ATP during citric acid cy		
	(1) 8	` '	22
	(3) 24	(4)	30
77.	Which of the following is a β-lactam an	tibio	tic?
	(1) Penicillin + cephalosporin		Streptomycin + gentamicin
	(3) Minocycline + doxycycline	(4)	Chloramphenicol
78.	Which of the following is <i>not</i> a synthetic	ic dru	ig?
	(1) Isoniazid	•	Rifampin
	(3) Pyrazinamide	(4)	Ethionamide

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79. Increased risk of atherosclerosis is associated with decreased serum level of:  (1) LDL (3) Triglyceride (4) VLDL  80. Milk of magnesia is: (1) Hydrated magnesium silicate (2) Hydrated magnesium oxide (3) Dehydrated magnesium hydroxide (4) Hydrated magnesium hydroxide  81. Vitali morin reaction is for: (1) Datura (2) Stramonium (3) Duboisia (4) All of the above  82. Which of the following does not contain steroidal alkaloids? (1) Ashwagandha (2) Ephedra (3) Kurchi (4) Veratrum  83. The characteristic odour of garlic is attributed to: (1) Quercetin glycoside (2) Furostanol glycoside (3) Heterogeneous sulphated polysaccharides (4) Diallylthiosulfinate  84. Match the following: Alkaloids with their chemical class (a) Acointe (1) Diterpene (b) Ephedrine (2) Piperidine (c) Lobeline (3) Amino alkaloids (d) Ergometrine (4) Indole alkaloids (e) Hygrine (5) Pyrrolidine (1) a-1,b-3, c-2, d-4, c-5 (3) a-5, b-3, c-2, d-4, c-1 (4) a-1, b-2, c-3, d-5, c-4  85. Tropane alkaloids are biosynthesized from			
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(c) Lobeline (3) Amino alkaloids (d) Ergometrine (4) Indole alkaloids (e) Hygrine (5) Pyrrolidine (1) a-1, b-3, c-2, d-4, e-5 (2) a-1, b-5, c-2, d-4, e-3 (3) a-5, b-3, c-2, d-4, e-1 (4) a-1, b-2, c-3, d-5, e-4  85. Tropane alkaloids are biosynthesized from		(a) Acointe (1) D	iterpene
(d) Ergometrine (4) Indole alkaloids (e) Hygrine (5) Pyrrolidine (1) a-1, b-3, c-2, d-4, e-5 (2) a-1, b-5, c-2, d-4, e-3 (3) a-5, b-3, c-2, d-4, e-1 (4) a-1, b-2, c-3, d-5, e-4  85. Tropane alkaloids are biosynthesized from		(b) Ephedrine (2) P	iperidine
(e) Hygrine (5) Pyrrolidine (1) a-1, b-3, c-2, d-4, e-5 (2) a-1, b-5, c-2, d-4, e-3 (3) a-5, b-3, c-2, d-4, e-1 (4) a-1, b-2, c-3, d-5, e-4  85. Tropane alkaloids are biosynthesized from		(c) Lobeline (3) A	mino alkaloids
(1) a-1, b-3, c-2, d-4, e-5 (2) a-1, b-5, c-2, d-4, e-3 (3) a-5, b-3, c-2, d-4, e-1 (4) a-1, b-2, c-3, d-5, e-4  85. Tropane alkaloids are biosynthesized from		(d) Ergometrine (4) Ir	ndole alkaloids
(3) a-5, b-3, c-2, d-4, e-1  (4) a-1, b-2, c-3, d-5, e-4  85. Tropane alkaloids are biosynthesized from		(e) Hygrine (5) P	yrrolidine
85. Tropane alkaloids are biosynthesized from		(1) a-1, b-3, c-2, d-4, e-5	(2) a-1, b-5, c-2, d-4, e-3
(1) Ornithine (2) Phenylalanine (3) Lysine (4) Tryptophan  86. Chaulmoogra oil has been used since ancient times for the treatment of which disease (1) Tuberculosis (2) Leprosy (3) Malaria (4) Diabetes		(3) a-5, b-3, c-2, d-4, e-1	(4) a-1, b-2, c-3, d-5, e-4
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		(1) Tuberculosis	
PG-EE-July, 2025/(Pharmaceutical Science)(SET-Y)/(C)		(3) Malaria	(4) Diabetes
	PG-	EE-July, 2025/(Pharmaceutical Science)	(SET-Y)/(C)

87.	Antioxidant used as blocking agent in sterile product is:  (1) Ascorbic acid esters  (2) Sodium bisulphate  (3) Ascorbic acid  (4) EDTA
88.	(Weight in pounds/150)* Adult Dose = Child dose  The above formula is known as
89.	Type IV dissolution apparatus as per USP is:  (1) Flow through cell  (2) Paddle type apparatus  (3) Reciprocating cylinder  (4) Paddle over disk apparatus
90.	<ul> <li>Indicate which of the following statements is <i>true</i>:</li> <li>(1) A weakly acidic drug is unionised when pH of the solution is at least 2 pH units below its pKa.</li> <li>(2) Acidic drugs are non-ionized at pH 9.</li> <li>(3) Acidic drugs are less soluble in alkaline solution.</li> <li>(4) The higher the pKa of a weak acid, the stronger is acid.</li> </ul>
91.	M2 receptor is responsible for following effects:  [P] Cardiac inhibition  [Q] Neural inhibition  [R] Gastric secretion  [S] Vasodilatation  (1) P and Q  (2) P and R  (3) R and S  (4) Q and R
92.	Neostigmine may cause all of the following, <i>except</i> :  (1) Block accommodation reflex  (2) Reversible inhibition of acetylcholinesterase  (3) Constipation  (4) Bronchoconstriction
93.	Atropine overdose may causes all of the following, <i>except</i> :  (1) Miosis  (2) Increased heart rate  (3) Relaxation of GIT smooth muscle  (4) Mental aberration

С

94.	Receptors for steroid hormones can be	found in the:
	(1) Plasma membrane	(2) Cytosol
	(3) Mitochondria	(4) Ribosomes
95.	The binding of insulin to the insulin re (1) The interaction of the receptor wit (2) The activation of adenylyl cyclase (3) The activation of phospholipase C (4) Tyrosine Kinase activity	h protein G
96.	Which of the following increases the t	issue sensitivity to insulin?
	(1) Acarbose	(2) Gliclazide
	(3) Rosiglitazone	(4) Metformine
97.	Mechanism of action of antithromboti (1) Conversion of plasminogen to pla (2) Activation of clotting factors (3) Inhibition of platelet function (4) Agonist of vitamin K	8
98.	Carbidopa is useful in the treatment o  (1) Is a precursor of L-dopa  (2) Prevents the breakdown of dopan  (3) Promotes the increased concentra  (4) Can readily penetrate the CNS	ine
99.	Side effects of phenothiazines include	all except :
	(1) Blood dyscrasias	(2) Obstructive jaundice
	(3) Orthostatic hypotension	(4) Increased GIT motility
100.	The action of penicillin requires the p  (1) Proteoglycans	resence of cell wall that contains (2) Peptidoglycans
	(3) N-acetyl glucosamine	(4) N-acetyl muramic acid

Total No. of Printed Pages: 13

## (DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

## D

## PG-EE-July, 2025

SET-Y

**SUBJECT: Pharmaceutical Science** 

sr. No. .....

Time: 11/4 Hours	Max. Marks : 100	Total Questions : 100
Roll No. (in figures)	(in words)	
Name	Date of Birth	
Father's Name	Mother's Name	la madrificações de atradas laginas commerciantes quantos apresas como
Date of Examination		
		The promotion of the control of the
(Signature of the Candidate)		(Signature of the Invigilator)

## CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

- 1. All questions are compulsory.
- 2. The candidates *must return* the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfairmeans / mis-behaviour will be registered against him / her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
- 3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
- 4. Question Booklet along with answer key of all the A, B, C & D code shall be got uploaded on the University Website immediately after the conduct of Entrance Examination. Candidates may raise valid objection/complaint if any, with regard to discrepancy in the question booklet/answer key within 24 hours of uploading the same on the University Website. The complaint be sent by the students to the Controller of Examinations by hand or through email. Thereafter, no complaint in any case, will be considered.
- 5. The candidate *must not* do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers *must not* be ticked in the question booklet.
- 6. There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
- 7. Use only Black or Blue Ball Point Pen of good quality in the OMR Answer-Sheet.
- 8. Before answering the questions, the candidates should ensure that they have been supplied correct and complete booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.

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		· · · · · · · · · · · · · · · · · · ·
1.	All statements are correct for SN-1 react (1) Follows first-order kinetic (2) Rearrangement is possible (3) Inversion of configuration takes place (4) Two-step reaction	
2.	Which of the following techniques compounds?  (1) UV visible spectroscopy  (3) Flourimetry	is used to detect the hydrogen bonding in  (2) Infrared  (4) Colorimetry
3.	Which of the following bonds would sho (1) Carbon-hydrogen (3) Nitrogen-hydrogen	ow the strongest absorption in the IR?  (2) Oxygen-hydrogen  (4) Sulfur-hydrogen
4.	Which of the following sequences is the order? (1) Ester, ketone, acid, amide (3) Ester, ketone, amide, acid	<ul><li>correct order of C=O stretching in descending</li><li>(2) Acid, amide, ketone, ester</li><li>(4) Amide, acid, ketone, ester</li></ul>
5.	Reference compound used in NMR spec (1) Silane (3) Dimethylsilane	troscopy is :  (2) Trimethylsilane  (4) Tetramethylsilane
6.	Number of NMR signal generated by acc (1) 2 (3) 3	etone is: (2) 6 (4) 1
7.	The reference electrode in potentiometry  (1) Dropping mercury electrode  (3) Platinum electrode	is
8.	Purity of water is determined by: (1) Conductometer (3) Potentiometer	(2) HPLC (4) UV
9.	In chromatography if column length is decreases, then:  (1) Peak width increases  (2) Column separation efficiency decrease  (3) Number of theoretical plate decrease  (4) Column separation efficiency increase	s

10.	Bathochromic shift involves:  (1) Increase in intensity of absorption  (2) Decrease in intensity of absorption  (3) Increase in wavelength of maximum absorption  (4) Decrease in wavelength of maximum absorption		
11.	M2 receptor is responsible for following  [P] Cardiac inhibition  [Q] Neural inhibition  [R] Gastric secretion  [S] Vasodilatation  (1) P and Q  (3) R and S	effects:  (2) P and R  (4) Q and R	
12.	Neostigmine may cause all of the follow  (1) Block accommodation reflex  (2) Reversible inhibition of acetylcholin  (3) Constipation  (4) Bronchoconstriction		
13.	Atropine overdose may causes all of the (1) Miosis (3) Relaxation of GIT smooth muscle	following, except:  (2) Increased heart rate  (4) Mental aberration	
14.	Receptors for steroid hormones can be for (1) Plasma membrane (3) Mitochondria	Found in the: (2) Cytosol (4) Ribosomes	
15.	The binding of insulin to the insulin rec (1) The interaction of the receptor with (2) The activation of adenylyl cyclase (3) The activation of phospholipase C (4) Tyrosine Kinase activity	protein G	
16.	Which of the following increases the tis (1) Acarbose (3) Rosiglitazone	(2) Gliclazide (4) Metformine	

17.	Mechanism of action of antithrombotic at (1) Conversion of plasminogen to plasm (2) Activation of clotting factors (3) Inhibition of platelet function (4) Agonist of vitamin K	
18.	Carbidopa is useful in the treatment of P  (1) Is a precursor of L-dopa  (2) Prevents the breakdown of dopamine  (3) Promotes the increased concentration  (4) Can readily penetrate the CNS	е
19.	Side effects of phenothiazines include al (1) Blood dyscrasias (3) Orthostatic hypotension	l <i>except</i> :  (2) Obstructive jaundice  (4) Increased GIT motility
20.	The action of penicillin requires the pres (1) Proteoglycans (3) N-acetyl glucosamine	ence of cell wall that contains:  (2) Peptidoglycans  (4) N-acetyl muramic acid
21.	Humectants means:  (1) It reduces the particle size of the power.  (2) It is used to increase the thickness of the drying of the control of t	the ointment cream
22.	Zanasi instrument is used for: (1) To determine particle size (3) For tablet coating	<ul><li>(2) To determine the rheology of semisolids</li><li>(4) Capsule machine</li></ul>
23.	is widely used in chewable ta (1) Starch (2) Mannitol	blets. (3) Lactose (4) PVP
24.	Water attack test is used to identify the a (1) Type-I glass (3) Type-III glass	lkalinity in : (2) Type-II glass (4) All the 3 types
25.	Class 100 area means: (1) Grade A area (3) Grade C area	<ul><li>(2) Grade B area</li><li>(4) Grade D area</li></ul>

26.	Spurious drug comes under: (1) Section 17 (3) Section 17B		Section 17A Section 3B
27.	"Kala jadu or Kavach" comes under: (1) Schedule J (3) Schedule L	- 000	Schedule K Schedule P
28.	The schedule in Drug and Cosmetics Acclinical trial, import and manufacture of (1) Schedule O (3) Schedule F	new (2)	at deals with requirement and guidelines of drug is: Schedule M Schedule Y
29.	As per D and C Act "Schedule N" is rela (1) List of maximum equipments for eff (2) Area for opening retail pharmacy (3) List of minimum equipment for effic (4) Area required to open wholesale dru	icier cient	ntly running pharmacy
30.	Which of the following is prohibited to b	e in	aported?
,	(1) Toilet preparations		Ayurvedic drugs
	(3) Schedule 'C' and 'G' drugs	(4)	Misbranded drugs
31.	Vitali morin reaction is for:	<b></b>	
	(1) Datura	` ,	Stramonium All of the above
	(3) Duboisia	, ,	All of the above
32.	Which of the following does <i>not</i> contain		
	(1) Ashwagandha	, ,	Ephedra Veratrum
	(3) Kurchi		
33.	<ul><li>The characteristic odour of garlic is attri</li><li>(1) Quercetin glycoside</li><li>(2) Furostanol glycoside</li><li>(3) Heterogeneous sulphated polysaccha</li></ul>		
	(4) Diallylthiosulfinate		

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34.	Match the following:			
	Alkaloids with their chemical class			
	(a) Acointe	(1)	Diterpene	
	(b) Ephedrine	(2)	Piperidine	
	(c) Lobeline	(3)	Amino alkaloids	
	(d) Ergometrine	(4)	Indole alkaloids	
	(e) Hygrine	(5)	Pyrrolidine	
	(1) a-1, b-3, c-2, d-4, e-	5	(2) a-1, b-5, c-2, d-4, e-3	
	(3) a-5, b-3, c-2, d-4, e-	1	(4) a-1, b-2, c-3, d-5, e-4	
<b>35.</b> Tropane alkaloids are biosynthesized from			from	
	(1) Ornithine		(2) Phenylalanine	
	(3) Lysine		(4) Tryptophan	
36.	Chaulmoogra oil has bee	en used since	e ancient times for the treatment of which diseas	se ?
	(1) Tuberculosis		(2) Leprosy	
	(3) Malaria		(4) Diabetes	
37.	Antioxidant used as bloo	kino agent i	n sterile product is :	
911	(1) Ascorbic acid esters		(2) Sodium bisulphate	
	(3) Ascorbic acid		(4) EDTA	
38.				
30.	3. (Weight in pounds/150)* Adult Dose = Child dose  The above formula is known as in Posology.			
	(1) Clark's formula	as	(2) Dillings formula	
	(3) Youngs formula		(4) Frieds formula	
20		omativa oa mar		
39.	Type IV dissolution app (1) Flow through cell	aratus as per		
	(3) Reciprocating cylin	der	<ul><li>(2) Paddle type apparatus</li><li>(4) Paddle over disk apparatus</li></ul>	
			••	
40.	<ul><li>Indicate which of the fo</li><li>(1) A weakly acidic dr</li><li>below its pKa.</li></ul>	_	ements is <i>true</i> : sed when pH of the solution is at least 2 pH u	ınit
	(2) Acidic drugs are no	n-ionized at	pH 9.	
	(3) Acidic drugs are less soluble in alkaline solution.			
	(4) The higher the pKa			

**50.** The lead compound for the development of sulfa drugs was:

(1) Penicillin

(2) Prontosil

(3) Salvarsan

(4) Quinine

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51.	Which of the following is <i>true</i> for dapso (1) Not much used due to toxicity (2) Inhibits folate synthesis in bacteria (3) Is reduced by intestinal bacteria to a (4) Is reduced by intestinal bacteria to a	salicylate
52.	BCG vaccine contains:  (1) A live-attenuated strain derived from (2) A live-attenuated strain derived from (3) A live-attenuated strain derived from (4) A dead-attenuated strain derived from	n M. Bovis n M. Africanum n M. Tuberculosis
53.	Crohn's disease affects part.  (1) Gastrointestinal tract  (3) Lung	(2) Kidney (4) Heart
54.	Which of the following antihyperlipide by blocking HMG Co-A reductase?  (1) Clofibrate  (3) Probucol	emic drugs inhibits the synthesis of cholesterol  (2) Pravastatin  (4) Nicotinic acid
55.	An organism which has been implicate peptic ulcer is:  (1) Campylobacter jejuni  (3) Helicobacter pylori	ed as a possible cause of chronic gastritis and  (2) Escherichia coli  (4) Giardia lamblia
56.	The mechanism of action of rifampicin (1) Inhibition of bacterial DNA directed (2) Inhibition of mycolic acid synthesis (3) Inhibition of protein synthesis (4) Inhibition of transpeptidase	involve :
57.	Haloperidol is a major tranquilizer. It be (1) Carbamates (3) Butyrophenone	elongs to the class of:  (2) Propanediol  (4) Phenothiazine
58.	The neurotransmitter is released at the s (1) Epinephrine (3) Acetylcholine	ympathetic nerve fiber is:  (2) Nor-epinephrine  (4) Physostigmine

59.	Vinblastine and Vincristine act by:  (1) Interfering with synthesis of transfer  (2) Inhibition of fragmentation of DNA  (3) Binding to protein  (4) Incorporating into folic acid metabo	
60.	The hypotensive effect of clonidine is du	
	<ul><li>(1) Beta-adrenergic receptor</li><li>(3) H1-receptor</li></ul>	<ul><li>(2) Alpha-adrenergic receptor</li><li>(4) H2-receptor</li></ul>
61.	When a molecule is excited by the absorbate by losing its excess of energy emitter (1) Phosphorescence (3) Electron emission	rption of radiation it soon returns to its grounded as radiation. This phenomenon is known as:  (2) Bathochromic shift  (4) Fluorescence
62.	A test to evaluate the detoxifying function (1) Serum albumin: globulin ration (3) Hippuric acid test	on of liver is:  (2) Galactose tolerance test  (4) Prothrombin time
63.	The deficiency of folate causes: (1) Pernicious anaemia (3) Macrocytic anaemia	<ul><li>(2) Megaloblastic anaemia</li><li>(4) Hemolytic anaemia</li></ul>
64.	Glucose absorption is promoted by: (1) Vitamin A (3) Ascorbic acid	<ul><li>(2) Vitamin E</li><li>(4) Thiamine</li></ul>
65.	'Lock and key' theory was proposed by: (1) Koshland (3) Mehler	(4) Sanger
66.	Generation of ATP during citric acid cyc(1) 8 (3) 24	(4) 30
67.	<ul> <li>Which of the following is a β-lactam and</li> <li>(1) Penicillin + cephalosporin</li> <li>(3) Minocycline + doxycycline</li> </ul>	tibiotic ? (2) Streptomycin + gentamicin (4) Chloramphenicol

68.	Which of the following is <i>not</i> a synthetic drug?	
	(1) Isoniazid (2) Rifampin (3)	3) Pyrazinamide (4) Ethionamide
69.	Increased risk of atherosclerosis is associate	ed with decreased serum level of:
	(1) I DI	2) HDL
	(3) Triglyceride (4)	1) VLDL
70.	Milk of magnesia is:	
	(1) Hydrated magnesium silicate (2	2) Hydrated magnesium oxide
	(3) Dehydrated magnesium hydroxide (4)	Hydrated magnesium hydroxide
71.		
	(1) D	2) Over-the-counter-drugs
	(2)	Generic drugs
72.		•
	(1) D1 T	Phase II
	(2) DI ****	Phase V
73.	A blend between Tween 20 and Span 20 fo	rm type of emulsion
	(1) 0/337	2) W/O
	(5) 5 5444	Multiple emulsions
74.	Shrinkage of gel by extrusion of liquid is c	alled:
	(1) 6	3) Plasticity (4) Ebullition
75.		
	(1) 11	2) Modern ointment
		Oleaginous and hydrocarbon
76.		they produce in the structural-functional of
	the kidney:	they produce in the structural-functional of
	(1) Aminoglycoside (a) Glomer	ular antibiotics abnormality
		epithelial cell damage
		ynamically mediated kidney injury
	4.43	tive nephropathy
	(1) 1-b, 2-c, 3-d, 4-a	2) 1-a, 2-b, 3-c, 4-d
	(3) 1-c, 2-d, 3-a, 4-b	e) 1-d 2-a 3-b 4-c

77.	Clavulanic acid is:		
	(1) Inactivates bacterial β-lactamase		
	(2) Potent inhibitor of peptidoglycan s		
	(3) Specific for gram negative bacteria		
	(4) Inhibitor of 50S ribosomal subunit		
78.			
	(1) Measure the pharmacological activity of a drug		
	(2) Avoid clinical trials for new drugs		
	(3) Detect the impurity in a given drug		
	(4) Screen from pharmacogenetic influ		
79.	of the following is C1F450 eliz	yme inhibitor ?	
	(1) Grape juice	(2) Rifampicin	
	(3) Barbiturates	(4) Carbamazepine	
80.	Most common Phase-II reaction is:		
	(1) Sulfate conjugation	(2) Glucuronide conjugation	
	(3) α amino acid conjugation	(4) Methylation	
81.	Following is <i>not</i> used as a measure of flow property of powder:		
	(1) Compressibility index	(2) Hausner's ratio	
	(3) Angle of repose	(4) Bulk density	
82.	If the Carr's index of a powder is 10%,	then the type of powder flow is:	
	(1) Poor	(2) Excellent	
	(3) Very poor	(4) Good	
83.	According to IP/BP very fine powder is		
	(1) All particles pass through 120# sieve		
	(2) 90% particles pass through 350# sieve		
	(3) All particles pass through 350 # sie	ve	
	(4) 90% particles are of size $<$ 10 $\mu$ m		
84.	One of the following mills works on be impact:	oth the principles of interparticulate attrition an	
	(1) Cutter mill	(2) Hammer mill	
	(3) Roller mill	(4) Fluid energy mill	
		<u> </u>	

<b>8</b> 5.	Which of the following causes sticking p	problem ?
	(1) Stearic acid	(2) PVP
	(3) Lactose	(4) Cellulose
86.	The following is the filling principle in t	he capsule-filling machine except:
	(1) Auger filling	(2) Vibratory principle
	(3) Dosator principle	(4) Hopper filling
87.	Tablets that after oral administration re effect are:	lease the drug at a desired time for prolonged
	(1) Multi-Compressed tablets	(2) Multilayer tablet
	(3) Enteric-coated tablets	(4) Sustained action tablets
88.	As per IP, the percentage of sucrose in si	
	(1) 56% w/w	
	(3) 66.7% w/w	(2) 66.7% w/v
		(4) 85% w/w
89.	Influence of temperature on drug decomp	position is expressed by:
	(1) Arrhenius equation	(2) Rutherford's equation
	(3) Langmuir's isotherm	(4) BET equation
90.	Shelf life of a product is the time lapse d	uring which allowed is the
	(1) 50% drug degradation	(2) 90% of the degradation
	(3) 90 % of the drug retained	(4) None
91.	Volatile oil has huge potential to be used pleasant-smelling compound:	d as perfumery. Which of the following are the
	(1) Terpenoids	(2) Glycosides
	(3) Alkaloids	(4) Resins
92.	A person is suffering from asthma. Which breathing?	ch of the following drug help may help ease his
	(1) Ephedrine	(2) Ergotamine
	(3) Strychnine	(4) Brucine
93.	Which of the following formulations up	
les.	of shelf life in D and C Act?	der ASU system are offered an infinite period
	(1) Asava & Arishta	(2) Churna
	(3) Ghutika	(4) Kwatha
		, , · · · · · · · · · · · · · · · · ·

94.	Which of the following alkaloi	ds has	hypotensive activity.
	(1) Reserpine		(2) Quinine
	(3) Emetine		(4) Papaverine
95.	Silica gel G contains which of	the fo	llowing binder?
	(1) Starch		(2) Gelatin
	(3) Cellulose		(4) Gypsum
96.	Plant tissue culture has potenti	al role	
	(1) Secondary metabolite prod	duction	
	(3) Genetic mapping		(4) Micropropagation
97.	'Candelabra' trichomes are pre	sent in	1:
	(1) Verbascum thapsus		(2) Digitalis purpurea
	(3) Senna angustifolia		(4) Helicterisisora
98.	Relation between ester value,	saponi	fication value and acid value is:
	(1) Ester Value = Saponificat		
	(2) Ester Value = Saponificat	1000	
	(3) Ester Value = Acid Value	-	
	(4) Ester Value = Saponificat	ion Va	alue /Acid Value
99.	Which of the following is not	a dico	tyledonous type of stomata?
	(1) Diacytic		(2) Moss
	(3) Anisocytic		(4) Rubiaceous
100.	Match the following: Alkaloi	ds Cho	emical Constitutes:
	(a) Cinchona	(1)	Reserpine
	(b) Opium	(2)	Quinine
	(c) Ergot	(3)	Ergometrine
	(d) Rauwolfia	(4)	Morphine
	(e) Nux vomica	(5)	Strychnine
	(1) a-2, b-4, c-3, d-1, e-5		(2) a-4, b-1, c-3, d-2, e-5
	(3) a-2, b-3, c-4, d-5, e-1		(4) a-2, b-4, c-3, d-5, e-1

Q. NO.	A	19.07.2025 B	С	D
1	1	4	4	2
2	1	2	4 .	2
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