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Α

PG-EE-July, 2024

SET-Y

SUBJECT: Pharmaceutical Science

10161

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	
Date of Examination		
(Signature of the Candidate)		(Signature of the Invigilator)

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- 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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	(3) Erythropoietin	(4) Interferons	
	(1) Streptokinase	(2) Oxytocin	
5.	Which of the following proteins is used a	as a drug for the treatment of anaemia?	
	(3) Isoprenaline	(4) Phenylephrine	
	(1) Norepinephrine	(2) Salbutamol	
4.	Which of the following drugs is a non-se		?
	(4) Sympathetic effect on ciliary muscle	: IS CONTRACTION	
	(3) Parasympathetic effect on heart atria		
	(2) Sympathethetic effect on eye pupils is constriction		
	(1) Parasympathetic effect on salivary g		
3.	Which of the following statements is TR		
	(4) None of the above		
	programmed sequence of biochemic	al events.	
	(3) Cell suicide by a built-in self-des		etically
	(2) Formation of new capillaries from being vascular endothelial growth fa	existing blood vessels, an important st	imulus
	inflammatory response	naged cens resulting in products that arg	ger the
2.	Apoptosis is described by which of the f	onowing statements ? naged cells resulting in products that trig	ger the
•	•		
	(4) Chlorpromazine		
	(3) Propranolol		
	(2) Ranitidine		
••	(1) Mepyriamine	TOCKET .	
1.	Which of the following drugs is a H-2 blocker?		

-	
6.	Which of the following is NOT a potassium sparing diuretic?
	(1) Amiloride
	(2) Triamterene
	(3) Spironolactone
	(4) Furosemide
7.	Which of the following drugs stimulate insulin secretion and can cause hypoglycaemia?
	(1) Tolbutamide
	(2) Rosiglitazone
	(3) Metformin
	(4) Pioglitazone
8.	
	(1) Chlorpromazine (2) Haloperidol
	(3) Clopazine (4) Bromocriptine
9.	. Which of the following statements refers to Parkinson's disease?
	(1) Age related dementia, distinct from vascular dementia, associated with brain infarction
	(2) Progressive disorder of movement that occurs mainly in the elderly
	(3) An inherited (autosomal dominant) disorder resulting in progressive braidegeneration, starting in adulthood and causing rapid deterioration and death
	(4) Intracerebral thrombosis or haemorrhage resulting in rapid death of neurons in the centre of lesion
10.	Which of the following is an ultra short acting (<6 hr) benzodiazepine?
	(1) Alprazolam (2) Diazepam
	(3) Clonazepam (4) Midazolam
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		Tomic closec (grand mall
11.	Which of the following anti-epileptic seizures?	e drugs is used in Tonic-clonic (grand mai)
	(1) Carbamazepine	
	(2) Ethosuximide	
	(3) Valporate	
	(4) Diazepanı	
12.	Which of the following drugs is an Opio	od antagonist?
	(1) Morphine	
	(2) Codeine	
	(3) Meperidine	
	(4) Naltrexone	
13.	Which of the following drugs has a VEI	RY STRONG dependence liability?
	(1) Caffeine	
	(2) Cannabis	
	(3) Cocaine	
	(4) LSD	
14.	Which of the following drugs is a short	acting anaesthetic ?
	(1) Procaine	(2) Lignocaine
	(3) Tetracaine	(4) Bupivacaine
15.	Which of the following antibiotics is a (e.g., Neisseria gonorrhoea)?	drug of first choice for gram negative cocci
	(1) Penicillin G	(2) Penicllin V
	(3) Flucloxacillin	(4) Amoxicillin

(4) Propofol

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(3) Nitrous oxide

21.	The value of Blood Urea Nitrogen (s following conditions?	serum) will show a decrease in which of the
	(1) Liver failure	
	(2) Kidney disease	
	(3) Diabetes	
	(4) Myocardial infarction	
22.	An increase in the number of cells in a t division is called:	issue due to an increase in the frequency of cell
	(1) Metaplasia	
	(2) Anaplasia	
	(3) Atrophy	
	(4) Hyperplasia	
23.	A painful conical thickening of the strat over toe joints and between the toes, often	um corneum of the epidermis found principally en caused by friction or pressure, is called:
	(1) Blister	(2) Comedo
	(3) Corn	(4) Eczema
24.	A biaxial joint allowing movement in middle ear) is called:	the sagittal and frontal planes (e.g., thumb,
	(1) Hinge joint	(2) Saddle joint
	(3) Planar joint	(4) Ball & socket joint
25.	Which of the following are "breathing m	uscles" ?
	(1) Trapezius, rhomboid	
	(2) Biceps, femoris	
	(3) Erector spinae	
	(4) Diaphragm, intercostals	
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26.	Which law states: When two or more ga a closed space, the total pressure exe individual gases?	ses, which do not react chemically, are kept in ted by the mixture is equal to the sum of
	(1) Grahm's law	
	(2) Dalton's law	
	(3) Charles law	
	(4) Boyle's law	
27.	The unit of dipole moment is:	
	(1) Dynes per cm	
	(2) Poise	
	(3) Dynes per square cm	,
	(4) Debye	
28.	Which of the following is an example of	anisotropic material ?
	(1) Graphite	(2) Glass
	(3) Plastics	(4) Quartz
29.	The temperature at which a polymorphic is called:	e substance changes from one form to another
	(1) Equilibrium temperature	
	(2) Triple point	
	(3) Boyle's temperature	
	(4) Transition temperature	
30.	An apparatus used to measure heat chang	ges during a chemical reaction is called:
	(1) Polarimeter	(2) Calorimeter
	(3) Colorimeter	(4) None of these
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31.	A 3-letter code Asn and t-letter code N	refers to which of the following amino acid	ls?
	(1) Alanine		
	(2) Arginine		
	(3) Asparagine		
	(4) Aspartic acid		
32.	Which of the following enzymes acts i hydrolysis?	n joining two substrates at the expense of	ATP
	(1) Transferases		
	(2) Hydrolases		
	(3) Lyases		
	(4) Ligases		
33.	Which of the following indicators give colour in alkaline solutions?	ves yellow colour in acidic solutions and	d red
	(1) Phenol red	(2) Methyl red	
	(3) Phenolphthalein	(4) Litmus	
34.	Which of the following pairs of colours	is NOT complementary ?	
	(1) Violet and yellow	(2) Red and green	
	(3) Blue and yellow	(4) Blue and orange	
35.	Number of milligrams of potassium hy gram of the fat or oil is called:	droxide required to neutralize the free acid	d in 1
	(1) Acetyl value		
	(2) Saponification value		
	(3) Acid value		
	(4) Iodine value		
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36.	Which of the following is a tri-carboxyl	ic acid?
	(1) Oxalic acid	
	(2) Succinic acid	
	(3) Adipic acid	
	(4) Citric acid	
37.	Sucrose is an example of :	
	(1) Monosaccharides	
	(2) Disaccharides	
	(3) Oligosaccharides	
	(4) Polysaccharides	
38.	Which of the following is a dihydric alc	ohol?
	(1) Phenol	
	(2) Paracetamol	
	(3) Resorcinol	•
	(4) Phloroglucinol	•
39.	Which of the following is a polynuclear	hydrocarbon, containing 3 or more fused rings
	(1) Naphthalene	
	(2) Propranolol	
	(3) Tolnaftate	
	(4) Amitryptyline	
40.	Which of the following is an example of	f a fused ring hetrocylic compound?
	(1) Indole	(2) Pyrrole
	(3) Pyrimidine	(4) Furan
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41.	what is the common name of a c	rug represented by .	
	5-ethyl-5-phyenylbarbituric acid	?	
	(1) Cylcobarbitone		
	(2) Phenobarbitone		
	(3) Thiopentone		
	(4) Hexobarbital		
42.	What is the common name of the	e drug represented by :	
	N-diethylaminoacetyl-2,6-xylidi	ne?	
	(1) Benzocaine		
	(2) Procaine		
	(3) Lignocaine		
	(4) Dibucaine		
43.	What is the common name of the	e drug represented by ?	
	4-Amino-N-(4,6-dimethyl-2-pyr	imidinyl)benzene sulfonamide?	
	(1) Sulfamethizole	(2) Sulfamethazine	
	(3) Sulfacetamide	(4) Sulfapyridine	
44.	Which of the following metaboli	c pathways is not a Phase-I reaction?	
,	(1) Oxidation	(2) Reduction	
	(3) Hydrolysis	(4) Acetylation	
45.	6-Mercaptopurine is a pharmool parent drug?	logically active metabolite of which of	the following
	(1) Azathioprine	(2) Carbamazipine	
	(3) Diazepam	(4) Quinidine	
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46.	What is the IUPAC name of Eugenol?	
	(1) 4-chloro-3-methyl phenol	
	(2) Ispropyl-m-cresol	
	(3) 4-Allyl-2-methoxyphenol	
	(4) m-Dihyroxybenzen	
47.	What is the IUPAC name of Furosemide	e ?
	(1) 6-chloro-2H-1,2,4-benzothiadiazine	-7-sulfonamide
	(2) 2-chloro-5-(1-hydroxy-3-oxo-1-isoi	ndolinyl)benzene suIfonamide
	(3) 4-chloro-2-(furan-2-ylmethylamino)	
	(4) 2,4,7-Triamino-6-phenylpteridine	
48.	A solvent used to separate mixture of co	omponents (mobile phase) is called:
	(1) Eluent	(2) Elute
	(3) Adsorbent	(4) Stationary phase
49.	Which of the following spray reagents and tannins?	can be used for detecting phenolic compound
	(1) Dragendroff's reagent	
	(2) Ninhydrin in acetone	
	(3) 3,5-Dinitrobenzoic acid	
	(4) Ferric chloride	
50.	Which of the following is an example o	f a strong cation resin?
	(1) Sulfonated polystyrene	
	(2) Quaternary ammonium	
	(3) Cholestyramine	
	(4) Colistipol	
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51.	What is the range of visible spectrum?		
	(1) 1 to 180 nm	(2) 180 to 400 nm	
	(3) 400 to 750 nm	(4) More than 750 nm	
52 .	Emission of light by certain materials, w	then they are relatively cool, is called:	
	(1) Fluorescence	(2) Phosphorescence	
	(3) Incandescence	(4) Luminiscence	
53.	The technique in which radition is absorbed by ground state atoms, atoms get excited, not dependent upon temperature, and absorb specific wavelenght of light that are characteristic of the element, is called:		
	(1) Flame photometry		
	(2) Atomic absorption spectroscopy		
	(3) Infras red spectroscopy		
	(4) Fluorimetry		
54.	In FTIR, which of the following regions	represent vibrations of the free -OH group?	
	(1) 2960 - 2850 per cm		
	(2) 1500 - 1350 per cm	~	
	(3) 3700 to 3500 per cm		
	(4) 1410 - 1300 per cm		
55.	A spectroscopic technique, typically us (also rotational & other low frequency m	ed to determine vibration modes of molecules nodes) is called:	
	(1) Atomic absorption spectroscopy		
	(2) Visible spectroscopy		
	(3) FTIR spectroscopy		
	(4) Raman Spectroscopy		
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56.	Typical effects such root growth, adve pollination, can be a	ntitious root pro-	n, giving an increase i duction and fruit -	n stem length, inhibition of setting in the absence of
	(1) Gibberlins	(2) Auxins	(3) Cytokinins	(4) Abscisic acid
5 7.	What is the source			
	(1) By melting & p	urifying the honey	ycomb of Apis mellific	a & other bees
	(2) From the groun	d kernels of the ol	oroma cocoa by hot ex	pression
	(3) Purified fat like	substance prepare	d from the wool of the	sheep Ovis aries (Bovidae)
	(4) Dried ripe seed			
58.	Give the common occur in the middle oranges) and roots (le lamellae of ce	il walls and are abuil	taining uronic acids, which dant in fruits (e.g., apples,
	(1) Pectins	(2) Algin	(3) Chitins	(4) Mucilages
59.	What is the source	of Jute?		
	(1) Pericyclic fibre	s of the stem of L	inum usitatissimum (L	ineaceae)
	(2) Pericyclic fibre	s of the stem of C	annibis sativa (Cannat	oinaceae)
	(3) Strands of phl species of Corc	oem fibres from horus (Tiliaceae)	the stem bark of Co	orchorus capsularis & other
	(4) Epidermal trick species of Goss	homes of the sec sypium (Malvacea	eds of Gossypium he e)	rbaceae & other cultivated
60.	Which of the follow	ving types of Stare	ch possess?	
	marked: some ring	gs, however moi musel-shaped. A	e distinct than other	E. Concentric striations well rs. Mostly simple granules nules of 2 or 3 components
	(1) Maize starch		(2) Wheat starch	
	(3) Rice starch		(4) Potato starch	

61	. What is the source of Guar g	um ?
	(1) Dried gum obtained from of Acacia (Leguminosae	m the stem & branches of Acacia senegal & other species
	(2) Ground endosperms of C	Cyamposis tetragonolobus
	(3) Artificially produced by on glucose.	the pure culture fermentation of Xanthomonas campestris
	(4) Dried ripe seeds of Plata	go ovata & other species (Plantaginaceae)
62.	2. Dimeric compounds formed essentially by the union of two molecules of a pheny propene derivative; optically active compounds, are commonly named as:	
	(1) Lignans	
	(2) Lignin	
	(3) Xanthum	
	(4) Glycosides	
63.	Which of the following vola components?	tile oils contain a high percentage of phenols as primary
	(1) Coriander	(2) Lemon
	(3) Clove	(4) Turpentine
64.	Which of the following is an	oleo-gum-resin ?
	(1) Chamomiles	(2) Asafoetida
	(3) Cardamom	(4) Eucalyptus
65.	Which of the following is NO	T an example of a steroidal saponin?
	(1) Quillaic acid	
	(2) Sarsapogenin	
	(3) Dioscin	
	(4) Digitoxin	
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66.	Stemwood of Picrasma (Simaroubaceae) is common			
	(1) Clove	(2) Cinnamon		
	(3) Ginger	(4) Quassia		
67.	Test for stomatal index is edrugs?	mployed to distinguish leaflets of which of the following		
	(1) Senna	(2) Belladonna		
	(3) Digitalis	(4) Cocoa		
68.	Which of the following drug	s contains steriodal alkaloids?		
	(1) Colchicine	(2) Quinine		
	(3) Solanum	(4) Vinca		
69.	Which of the following is N	OT an example of an essential oil ?		
	(1) Sunflower oil	(2) Peppermint oil		
	(3) Eucalyptus oil	(4) Lemon oil		
70.	Which of the following poly	saccharides is primarily of animal origin?		
	(1) Alpha amylose	(2) Cellulose		
	(3) Glycogen	(4) Inulins		
71.	Which of the following scho and Unani Systems of Medic	edules gives the list of official books for Ayurveda, Sidda ine?		
	(1) Schedule I to the Drugs and Cosmetics Act, 1940			
	(2) Schedule II to the Drugs and Cosmetics Act, 1940			
	(3) Schedule A to the Drugs and Cosmetics Rules, 1945			
	(4) Schedule C to the Drugs	and Cosmetics Rules, 1945		
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- 72. Which of the following persons is an NOT an ex-officio member of the Pharmacy Council of India?
 - (1) One teacher of any of the subjects (Pharmaceutical chemistry, pharmacy, pharmacology and pharmacognosy) from amongst persons on the teaching staff of an Indian University or a college affiliated thereto, which grants a degree or diploma in pharmacy
 - (2) Director General Health Services
 - (3) Drugs Controller India
 - (4) Director of the Central Drugs Laboratory
- 73. What is the term of a patent in India, as per the Patents Act, 1970 & rules thereunder?
 - (1) Twenty years from the date of grant of the patent
 - (2) Twenty years from the date of filing of the application for the patent
 - (3) Fourteen years from the date of grant of the patent
 - (4) Seven years from the date of grant of the patent
- **74.** What the "proof strength" as per the Medicinal and Toilet Preparations Act, 1955 & rules thereunder?
 - (1) Straight up to two times alcohol by volume
 - (2) Absolute alcohol
 - (3) 57.1 % v/v of absolute alcohol
 - (4) 90 % v/v of absolute alcohol
- **75.** As per the Narcotic Drugs and Psychotropic Substances Act, 1985 & rules thereunder, the definition of Opium derivative DOES NOT include which of the following:
 - (1) Medicinal opium
 - (2) Prepared opium
 - (3) All preparations containing more than 0.2 percent of morphine or containing any diacetylmorphine
 - (4) Seeds of the opium poppy

76.	is, the salt or ester, are of the same dost identical in strength and concentration applicable standards (i.e., strength, or	s that contain the same active ingredient(s), that age form, use the same route of administration, and meet the same or compendial or other nality, purity and identity) but may differ in configuration, release mechanisms, packaging, ertain limits, labeling, are called:
	(1) Chemical equivalents	(2) Pharmaceutical equivalents
	(3) Pharmaceutical alternatives	(4) Bioequivalent
77.	Which of the following pharmacokinetiusing the urinary data?	c parameters cannot be determined exclusively
	(1) Biological Half life	(2) Bioequivalence
	(3) Rate of elimination	(4) Apparent volume of distribution
78.	When conducting any pharmacokinetic solution blood or urine samples need to be collected.	study, what should be maximum time for which ted?
	(1) 4 biological half lives	(2) 8 biological half lives
	(3) 10 biological half lives	(4) Any duration of time
79.	solvents [usually a base solution of py	d for external use, containing highly volatile proxyline (soluble gun-cotton) in a mixture of e either a mechanical or therapeutic film:
	(1) Decoctions	(2) Elixirs
	(3) Infusions	(4) Collodions
80.	Name the dilute solutions containing prepared by macerating drugs in water for	water soluble extracts of vegetable drugs or short periods of time :
	(1) Infusions	
	(2) Decoctions	
	(3) Percolations	
	(4) Glycerins	

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81.	Semisolids that do not flow at low sheat elastic solids) but flow like liquids above	ar stress (exhibiting reversible deformation like their yield value (i.e., yield stress) are termed:
	(1) Newtonian	
	(2) Pseudoplastic	
	(3) Dilatant	
	(4) Plastic bodies	
82.	Which of the following liquids has the h	ighest surface tension?
	(1) Mercury	(2) Water
	(3) Oleic acid	(4) Hexane
83.	When there is little attaction between the system is called:	ne dispersed phase and the dispersion medium,
	(1) Lyophilic dispersions	
	(2) Lyophobic dispersions	•
	(3) Suspensions	
	(4) Emulsions	•
84.	Diameter of a sphere having the same g known as:	gravitational settling velocity as the particle, is
	(1) Martin's diameter	(2) Sieve diameter
	(3) Stokes diameter	(4) Feret's diameter
85.	Which of the following preservatives has	antifungal action?
	(1) Methyl paraben	
	(2) Benzyl alcohol	
	(3) Cresol	
	(4) Ethyl alcohol	
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10		at this value
86.	Time taken to reduce a microbial popunder specified conditions, is known:	ulation by 1 logarithm, or 90% of its initial value, as :
	(1) Half life	(2) Incubation value
	(3) Z-value	(4) D-value
87.	Which of the following biological sterilization?	indicators is suitable for evaluation of steam
	(1) Bacillus pumulis	
	(2) Bacillus subtilis	
	(3) Bacillus atrophaeus	
	(4) Bacillus anthracis	
88.	Which of the following preparations is	s free of preservatives ?
	(1) Multi dose eye drops	
	(2) Small volume parenterals	
	(3) Large volume parenterals	
	(4) Parenterals prepared by sterile fil	tration
89.	nunches, reduce interparticle friction	the tablet material to the surface of the dies and n, facilitate the ejection of tablets from the die ow of the tablet granulation, are called:
	(1) Binders	(2) Disintegrants
	(3) Lubricants	(4) Glidants
90.	A capsule fill weight of 1425 mg, corresponds to which of the following	corresponding to powder density of 1.5 gm/ml. g capsule sizes?
	(1) Size 4	
	(2) Size 1	
	(3) Size 0	
	(4) Size 00	
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91.	Numerical designation of	Aerosol propellant 11 corresponds to which of the following?
	(1) Trichloromono-fluoro	
	(2) Dichloro-difluoro me	hane
	(3) Dichloro-tetrafluoro	nethane
	(4) Tetrafluoroethane	
92.	Name the ingrediens, that compression or encapsular	function as a bulking agent for low dose actives, facilitating ion, in solid dosage forms:
	(1) Coating agents	
	(2) Disintegrants	
	(3) Lubricants	
	(4) Diluents	
93.	Which of the following c 30 degree c, relative humi	imatic zones (as per ICH guidelines) are hot/dry zone, temp. dity 35 % RH?
	(1) Zone 1	(2) Zone 2
	(3) Zone 3	(4) Zone IVa
94.	A drug having low solute following?	pility and high permeability is classified as which of the
	(1) BCS Class I	(2) BCS Class II
	(3) BCS Class III	(4) BCS Class IV
95.	A flow through cell type of USP Apparatus?	dissolution apparatus is described in which of the following
	(1) Apparatus 1	
	(2) Apparatus 2	
	(3) Apparatus 3	
	(4) Apparatus 4	
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96.	Post approval clinical trials are typicany	designates
	(1) Phase I	(2) Phase II
	(3) Phase III	(4) Phase IV
97.	One fluid once contains approximately	how may milliliters?
	(1) 15	(2) 20
	(3) 30	(4) 60
98.	A measure of the separation of the posystem; that is, a measure of the system	ositive and negative electrical charges within a s' overall polarity, is called:
	(1) Zeta potential	
	(2) Dipole moment	
	(3) Electric potential	
	(4) Potential energy	
99.	How many parts of solvent are required described as Freely soluble?	red for 1 part of solute, when the solubility is
	(1) From 1 to 10	
	(2) From 30 to 100	
	(3) From 1000 to 10000	
	(4) More than 10000	
100.	Which of the following filter medias is chemicals, such as strong acids?	suitable for filtering solutions of highly reactive
	(1) Filter paper	
	(2) Membrane filters	
	(3) Glass wool filters	
	(4) Paper pulp filter	
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- 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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SEAL

- 1. Which of the following schedules gives the list of official books for Ayurveda, Sidda and Unani Systems of Medicine?
 - (1) Schedule I to the Drugs and Cosmetics Act, 1940
 - (2) Schedule II to the Drugs and Cosmetics Act, 1940
 - (3) Schedule A to the Drugs and Cosmetics Rules, 1945
 - (4) Schedule C to the Drugs and Cosmetics Rules, 1945
- 2. Which of the following persons is an NOT an ex-officio member of the Pharmacy Council of India?
 - (1) One teacher of any of the subjects (Pharmaceutical chemistry, pharmacy, pharmacology and pharmacognosy) from amongst persons on the teaching staff of an Indian University or a college affiliated thereto, which grants a degree or diploma in pharmacy
 - (2) Director General Health Services
 - (3) Drugs Controller India
 - (4) Director of the Central Drugs Laboratory
- 3. What is the term of a patent in India, as per the Patents Act, 1970 & rules thereunder?
 - (1) Twenty years from the date of grant of the patent
 - (2) Twenty years from the date of filing of the application for the patent
 - (3) Fourteen years from the date of grant of the patent
 - (4) Seven years from the date of grant of the patent
- **4.** What the "proof strength" as per the Medicinal and Toilet Preparations Act, 1955 & rules thereunder?
 - (1) Straight up to two times alcohol by volume
 - (2) Absolute alcohol
 - (3) 57.1 % v/v of absolute alcohol
 - (4) 90 % v/v of absolute alcohol

5.	As per the Narcotic Drugs and Psychot the definition of Opium derivative DOE	ropic Substances Act, 1985 & rules thereunder, S NOT include which of the following:
	(1) Medicinal opium	
	(2) Prepared opium	
	(3) All preparations containing more t diacetylmorphine	han 0.2 percent of morphine or containing any
	(4) Seeds of the opium poppy	
6.	is, the salt or ester, are of the same dos identical in strength and concentration applicable standards (i.e., strength, q	s that contain the same active ingredient(s), that sage form, use the same route of administration, in, and meet the same or compendial or other uality, purity and identity) but may differ in configuration, release mechanisms, packaging, sertain limits, labeling, are called:
	(1) Chemical equivalents	(2) Pharmaceutical equivalents
	(3) Pharmaceutical alternatives	(4) Bioequivalent
7.	Which of the following pharmacokinet using the urinary data?	tic parameters cannot be determined exclusively
	(1) Biological Half life	(2) Bioequivalence
	(3) Rate of elimination	(4) Apparent volume of distribution
8.	When conducting any pharmacokinetic blood or urine samples need to be colle	study, what should be maximum time for which ected?
	(1) 4 biological half lives	(2) 8 biological half lives
	(3) 10 biological half lives	(4) Any duration of time
9.	solvents [usually a base solution of p	ed for external use, containing highly volatile byroxyline (soluble gun-cotton) in a mixture of we either a mechanical or therapeutic film:
	(1) Decoctions	(2) Elixirs
	(3) Infusions	(4) Collodions

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10.	prepared by macerating drugs in water for short periods of time:		
	(1) Infusions	(2) Decoctions	
	(3) Percolations	(4) Glycerins	
11.	What is the range of visible spectrum?		
	(1) 1 to 180 nm	(2) 180 to 400 nm	
	(3) 400 to 750 nm	(4) More than 750 nm	
12.	Emission of light by certain materials, w	hen they are relatively cool, is called:	
	(1) Fluorescence	(2) Phosphorescence	
	(3) Incandescence	(4) Luminiscence	
13.	3. The technique in which radition is absorbed by ground state atoms, atoms get excite not dependent upon temperature, and absorb specific wavelenght of light that characteristic of the element, is called:		
	(1) Flame photometry	(2) Atomic absorption spectroscopy	
	(3) Infras red spectroscopy	(4) Fluorimetry	
14.	In FTIR, which of the following regions	represent vibrations of the free –OH group?	
	(1) 2960 - 2850 per cm	(2) 1500 - 1350 per cm	
	(3) 3700 to 3500 per cm	(4) 1410 - 1300 per cm	
15.	A spectroscopic technique, typically use (also rotational & other low frequency m	ed to determine vibration modes of molecules odes) is called:	
	(1) Atomic absorption spectroscopy		
	(2) Visible spectroscopy		
	(3) FTIR spectroscopy		
	(4) Raman Spectroscopy		
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16	• •	ventitious root p		se in stem length, inhibition of - setting in the absence of
	(1) Gibberlins	(2) Auxins	(3) Cytokinins	(4) Abscisic acid
17.	What is the source	e of Anhydrous La	molin ?	
	(1) By melting &	purifying the hon-	eycomb of Apis mell	ifica & other bees
	(2) From the grou	and kernels of the	obroma cocoa by hot	expression
	(3) Purified fat lik	ke substance prepar	ed from the wool of	he sheep Ovis aries (Bovidae)
	(4) Dried ripe see	ds of Linum usitat	issium	
18.		dle lamellae of co	ell walls and are ab	ontaining uronic acids, which undant in fruits (e.g., apples,
	(1) Pectins	(2) Algin	(3) Chitins	(4) Mucilages
19.	What is the source	of Jute?		
	(1) Pericyclic fibr	es of the stem of L	inum usitatissimum	(Lineaceae)
	(2) Pericyclic fibr	es of the stem of C	annibis sativa (Cann	abinaceae)
		loem fibres from chorus (Tiliaceae)	the stem bark of C	Corchorus capsularis & other
		chomes of the see sypium (Malvacea		erbaceae & other cultivated
20.	Which of the follow	wing types of Starc	ch possess?	
	marked; some ring	gs, however more musel-shaped. A	e distinct than othe	4. Concentric striations well rs. Mostly simple granules, nucles of 2 or 3 components
	(1) Maize starch		(2) Wheat starch	í

(4) Potato starch

(3) Rice starch

21.	A 3-letter code Asn and t-letter code N i	refers to which of the following amino acids	?
	(1) Alanine		
	(2) Arginine		
	(3) Asparagine		
	(4) Aspartic acid		
22.	Which of the following enzymes acts in hydrolysis?	n joining two substrates at the expense of A	ΛTP
	(1) Transferases	,	
	(2) Hydrolases		
	(3) Lyases		
	(4) Ligases		
23.	Which of the following indicators give colour in alkaline solutions?	res yellow colour in acidic solutions and	red
	(1) Phenol red	(2) Methyl red	
	(3) Phenolphthalein	(4) Litmus	
24.	Which of the following pairs of colours	is NOT complementary ?	
	(1) Violet and yellow	(2) Red and green	
	(3) Blue and yellow	(4) Blue and orange	
25.	Number of milligrams of potassium hydgram of the fat or oil is called:	droxide required to neutralize the free acid i	n 1
	(1) Acetyl value		
	(2) Saponification value		
	(3) Acid value		
	(4) Iodine value		
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26.	Which of the following is a tri-	carboxylic acid ?
	(1) Oxalic acid	•
	(2) Succinic acid	
	(3) Adipic acid	
	(4) Citric acid	
27.	Sucrose is an example of:	
	(1) Monosaccharides	
	(2) Disaccharides	
	(3) Oligosaccharides	
	(4) Polysaccharides	
28.	Which of the following is a dih	ydric alcohol?
	(1) Phenol	
	(2) Paracetamol	
	(3) Resorcinol	
	(4) Phloroglucinol	
29.	Which of the following is a poly	ynuclear hydrocarbon, containing 3 or more fused rings?
	(1) Naphthalene	
	(2) Propranolol	
	(3) Tolnaftate	
	(4) Amitryptyline	
30.	Which of the following is an ex	cample of a fused ring hetrocylic compound?
	(1) Indole	(2) Pyrrole
	(3) Pyrimidine	(4) Furan
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31.	Which of the following anti-epileptic seizures?	drugs is used in Tonic-clonic (grand mal)	
	(1) Carbamazepine		
	(2) Ethosuximide	•	
	(3) Valporate		
	(4) Diazepam		
32.	Which of the following drugs is an Opiod antagonist?		
	(1) Morphine		
	(2) Codeine		
	(3) Meperidine		
	(4) Naltrexone		
33.	Which of the following drugs has a VERY STRONG dependence liability?		
	(1) Caffeine		
	(2) Cannabis		
	(3) Cocaine		
	(4) LSD		
34.	Which of the following drugs is a short a	acting anaesthetic ?	
	(1) Procaine	(2) Lignocaine	
	(3) Tetracaine	(4) Bupivacaine	
35.	Which of the following antibiotics is a (e.g., Neisseria gonorrhoea)?	drug of first choice for gram negative cocci	
	(1) Penicillin G	(2) Penicllin V	
	(3) Flucloxacillin	(4) Amoxicillin	

36.	Which of the following diseases is caused by a RNA Virus?	
	(1) Smallpox	
	(2) Herpes	
	(3) AIDS	
	(4) Mild cold or Flu	
37.	Which of the following drugs is used in	Tapeworm infections ?
	(1) Praziquantel	
	(2) Mebendazole	•
	(3) Levamisole	
	(4) Albendazole	
38.	Which of the following is NOT a charact	teristic of cancer cells?
	(1) Uncontrolled proliferation	•
	(2) Ability to metastasise	
	(3) Lack of capacity to differentiate	
	(4) Non invasiveness	
39.	Which of the following is a drug metabo	lising enzyme inducer?
	(1) Phenobarbital	
	(2) Chloramphenicol	
	(3) Cimetidine	
	(4) Erythromycin	
40.	Which of the following drugs is an intra-	venous general anaesthetic ?
	(1) Halothane	(2) Isoflurane
	(3) Nitrous oxide	(4) Propofol
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41.	Numerical designation of Aerosol propellant 11 corresponds to which of the following?	
	(1) Trichloromono-fluoro me	thane
	(2) Dichloro-difluoro methan	e
	(3) Dichloro-tetrafluoro meth	ane
	(4) Tetrafluoroethane	
42.	Name the ingrediens, that function as a bulking agent for low dose actives, facilitating compression or encapsulation, in solid dosage forms:	
	(1) Coating agents	
	(2) Disintegrants	
	(3) Lubricants	
	(4) Diluents	
43.	Which of the following climatic zones (as per ICH guidelines) are hot/dry zone, temp. 30 degree c, relative humidity 35 % RH?	
	(1) Zone 1	(2) Zone 2
	(3) Zone 3	(4) Zone IV a
44.	A drug having low solubility and high permeability is classified as which of the following?	
	(1) BCS Class I	(2) BCS Class II
	(3) BCS Class III	(4) BCS Class IV
45.	A flow through cell type of dissolution apparatus is described in which of the following USP Apparatus?	
	(1) Apparatus 1	
	(2) Apparatus 2	
	(3) Apparatus 3	
	(4) Apparatus 4	
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40.	Post approval clinical trials are typically designated as.	
	(1) Phase I	(2) Phase II
	(3) Phase III	(4) Phase IV
47.	One fluid once contains approximately h	now may milliliters?
	(1) 15	(2) 20
	(3) 30	(4) 60
48.	A measure of the separation of the positive and negative electrical charges within a system; that is, a measure of the systems' overall polarity, is called:	
	(1) Zeta potential	
	(2) Dipole moment	
	(3) Electric potential	
	(4) Potential energy	
49.	How many parts of solvent are required for 1 part of solute, when the solubility is described as Freely soluble?	
	(1) From 1 to 10	
	(2) From 30 to 100	
	(3) From 1000 to 10000	
•	(4) More than 10000	
50.	Which of the following filter medias is suitable for filtering solutions of highly reactive chemicals, such as strong acids?	
	(1) Filter paper	
	(2) Membrane filters	
	(3) Glass wool filters	
	(4) Paper pulp filter	
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51.	what is the source of Guar gum		
	(1) Dried gum obtained from the of Acacia (Leguminosae)	stem & branches of Acacia senegal & oth	er species
	(2) Ground endosperms of Cyam	posis tetragonolobus	
	(3) Artificially produced by the pon glucose.	oure culture fermentation of Xanthomonas	campestris
	(4) Dried ripe seeds of Platago or	vata & other species (Plantaginaceae)	
52.		entially by the union of two molecules or compounds, are commonly named as:	f a pheny
	(1) Lignans		
	(2) Lignin		
	(3) Xanthum		
	(4) Glycosides		
53.	Which of the following volatile oils contain a high percentage of phenols as primary components?		
	(1) Coriander	(2) Lemon	
	(3) Clove	(4) Turpentine	
54.	Which of the following is an oleo	-gum-resin ?	
	(1) Chamomiles	(2) Asafoetida	
	(3) Cardamom	(4) Eucalyptus	
55.	Which of the following is NOT as	n example of a steroidal saponin?	
	(1) Quillaic acid		
	(2) Sarsapogenin		
	(3) Dioscin		
	(4) Digitoxin		
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56.	Stemwood of Picrasma excelsa (Simaroubaceae) is commonly known as	
	(1) Clove	
	(2) Cinnamon	
	(3) Ginger	
	(4) Quassia	
57.	Test for stomatal index is employed to drugs?	distinguish leaflets of which of the following
	(1) Senna	(2) Belladonna
	(3) Digitalis	(4) Cocoa
58.	Which of the following drugs contains s	teriodal alkaloids ?
	(1) Colchicine	(2) Quinine
	(3) Solanum	(4) Vinca
59.	Which of the following is NOT an exam	aple of an essential oil?
	(1) Sunflower oil	
	(2) Peppermint oil	
	(3) Eucalyptus oil	
	(4) Lemon oil	
60.	Which of the following polysaccharides	is primarily of animal origin ?
	(1) Alpha amylose	
	(2) Cellulose	
	(3) Glycogen	
	(4) Inulins	
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61.	Semisolids that do not flow at low shear stress (exhibiting reversible deformation like elastic solids) but flow like liquids above their yield value (i.e., yield stress) are termed:	
	(1) Newtonian	
	(2) Pseudoplastic	
	(3) Dilatant	
	(4) Plastic bodies	
62.	Which of the following liquids has the highest surface tension?	
	(1) Mercury	(2) Water
	(3) Oleic acid	(4) Hexane
63.	When there is little attaction between the dispersed phase and the dispersion medium the system is called:	
	(1) Lyophilic dispersions	
	(2) Lyophobic dispersions	
	(3) Suspensions	
	(4) Emulsions	
64.	Diameter of a sphere having the same g known as:	gravitational settling velocity as the particle, is
	(1) Martin's diameter	(2) Sieve diameter
	(3) Stokes diameter	(4) Feret's diameter
65.	Which of the following preservatives has antifungal action?	
	(1) Methyl paraben	
	(2) Benzyl alcohol	
	(3) Cresol	
	(4) Ethyl alcohol	

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		to the Logarithm of 90% of its initial value
6 6.	Time taken to reduce a micro under specified conditions, is	
	(1) Half life	(2) Incubation value
	(3) Z-value	(4) D-value
67.	Which of the following biosterilization?	ological indicators is suitable for evaluation of steam
	(1) Bacillus pumulis	
	(2) Bacillus subtilis	
	(3) Bacillus atrophaeus	
	(4) Bacillus anthracis	
68.	Which of the following preparations is free of preservatives?	
	(1) Multi dose eye drops	
	(2) Small volume parenterals	
	(3) Large volume parenterals	
	(4) Parenterals prepared by s	erile filtration
69.	Excipients that prevent adhesion of the tablet material to the surface of the dies and punches, reduce interparticle friction, facilitate the ejection of tablets from the die cavity and may improve the rate of flow of the tablet granulation, are called:	
	(1) Binders	(2) Disintegrants
	(3) Lubricants	(4) Glidants
70.	A capsule fill weight of 1425 mg, corresponding to powder density of 1.5 gm/ml corresponds to which of the following capsule sizes?	
	(1) Size 4	
	(2) Size 1	
	(3) Size 0	
	(4) Size 00	
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71.	What is the common name of a drug repr	esented by :
	5-ethyl-5-phyenylbarbituric acid?	
	(1) Cylcobarbitone	
	(2) Phenobarbitone	
	(3) Thiopentone	
	(4) Hexobarbital	
72.	What is the common name of the drug re	presented by :
	N-diethylaminoacetyl-2,6-xylidine?	
	(1) Benzocaine	
	(2) Procaine	
	(3) Lignocaine	
	(4) Dibucaine	
73.	What is the common name of the drug re	epresented by ?
	4-Amino-N-(4,6-dimethyl-2-pyrimidinyl)benzene sulfonamide ?
	(1) Sulfamethizole	(2) Sulfamethazine
	(3) Sulfacetamide	(4) Sulfapyridine
74.	Which of the following metabolic pathw	ays is not a Phase-I reaction?
	(1) Oxidation	(2) Reduction
	(3) Hydrolysis	(4) Acetylation
75.	6-Mercaptopurine is a pharmcologicall parent drug?	y active metabolite of which of the following
	(1) Azathioprine	(2) Carbamazipine
	(3) Diazepam	(4) Quinidine

76.	what is the IUPAC name of Eugeno	01 (
	(1) 4-chloro-3-methyl phenol	
	(2) Ispropyl-m-cresol	
	(3) 4-Allyl-2-methoxyphenol	
	(4) m-Dihyroxybenzen	
77.	What is the IUPAC name of Furose	mide ?
	(1) 6-chloro-2H-1,2,4-benzothiadia	zine-7-sulfonamide
	(2) 2-chloro-5-(1-hydroxy-3-oxo-1-	isoindolinyl)benzene suIfonamide
	(3) 4-chloro-2-(furan-2-ylmethylam	ino)I-5-sulfamoylanthranilic acid
	(4) 2,4,7-Triamino-6-phenylpteridir	ne
78.	A solvent used to separate mixture of	of components (mobile phase) is called:
	(1) Eluent	(2) Elute
	(3) Adsorbent	(4) Stationary phase
79.	Which of the following spray reage and tannins?	nts can be used for detecting phenolic compounds
	(1) Dragendroff's reagent	
	(2) Ninhydrin in acetone	
	(3) 3,5-Dinitrobenzoic acid	
	(4) Ferric chloride	
80.	Which of the following is an example	e of a strong cation resin?
	(1) Sulfonated polystyrene	
	(2) Quaternary ammonium	
	(3) Cholestyramine	
	(4) Colistipol	
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81.	The value of Blood Urea Nitrogen (se following conditions?	erum) will show a decrease in which	of the
	(1) Liver failure		
	(2) Kidney disease		
	(3) Diabetes		
	(4) Myocardial infarction		
82.	An increase in the number of cells in a tidivision is called:	ssue due to an increase in the frequency	of cell
	(1) Metaplasia		
	(2) Anaplasia	•	
	(3) Atrophy		
	(4) Hyperplasia		
83.	A painful conical thickening of the stratum corneum of the epidermis found principally over toe joints and between the toes, often caused by friction or pressure, is called:		
	(1) Blister	(2) Comedo	
	(3) Corn	(4) Eczema	
84.	A biaxial joint allowing movement in middle ear) is called:	the sagittal and frontal planes (e.g.,	thumb,
	(1) Hinge joint	(2) Saddle joint	
	(3) Planar joint	(4) Ball & socket joint	
85.	Which of the following are "breathing m	uscles" ?	
	(1) Trapezius, rhomboid		
	(2) Biceps, femoris		
	(3) Erector spinae		
	(4) Diaphragm, intercostals		
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86.	Which law states: When two or more g a closed space, the total pressure excindividual gases?	ases, which do not react chemically, are kept in erted by the mixture is equal to the sum of
	(1) Grahm's law	
	(2) Dalton's law	
	(3) Charles law	
	(4) Boyle's law	
87.	The unit of dipole moment is:	
	(1) Dynes per cm	
	(2) Poise	
	(3) Dynes per square cm	
	(4) Debye	
88.	Which of the following is an example of	f anisotropic material ?
	(1) Graphite	(2) Glass
	(3) Plastics	(4) Quartz
89.	The temperature at which a polymorph is called:	ic substance changes from one form to another
	(1) Equilibrium temperature	
	(2) Triple point	
	(3) Boyle's temperature	
	(4) Transition temperature	
90.	An apparatus used to measure heat chan	ges during a chemical reaction is called:
	(1) Polarimeter	(2) Calorimeter
	(3) Colorimeter	(4) None of these
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91.	Which of the following drugs is a H-2 blocker?		
	(1) Mepyriamine		
	(2) Ranitidine	v.	
	(3) Propranolol		
	(4) Chlorpromazine		
92.	Apoptosis is described by which of the fo	ollowing statements ?	
	(1) A disorganised disintegration of dam inflammatory response	aged cells resulting in products that trigge	r the
	(2) Formation of new capillaries from being vascular endothelial growth factors	existing blood vessels, an important stimetor	ulus
	(3) Cell suicide by a built-in self-dest programmed sequence of biochemics	ruct mechanism; it consists of a genetical events.	cally
	(4) None of the above		
93.	. Which of the following statements is TRUE?		
	(1) Parasympathetic effect on salivary glands is dilation		
	(2) Sympathethetic effect on eye pupils is constriction		
	(3) Parasympathetic effect on heart atrial muscle is increased force		
	(4) Sympathetic effect on ciliary muscle	is contraction	
94.	Which of the following drugs is a non-se	elective beta agonist (sympathomimetic) ?	
	(1) Norepinephrine	(2) Salbutamol	
	(3) Isoprenaline	(4) Phenylephrine	
95.	Which of the following proteins is used	as a drug for the treatment of anaemia?	
	(1) Streptokinase	(2) Oxytocin	
	(3) Erythropoietin	(4) Interferons	
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96.	Which of the following is NOT a potassium sparing diuretic?		
	(1) Amiloride		
	(2) Triamterene		
	(3) Spironolactone		
	(4) Furosemide		
97.	Which of the following drugs s	timulate insulin secretion and can cause hypoglycaemia?	
	(1) Tolbutamide		
	(2) Rosiglitazone		
	(3) Metformin		
	(4) Pioglitazone		
98.	Which of the following drugs	is a Dopamine agonist ?	
56.	(1) Chlorpromazine	(2) Haloperidol	
	(3) Clopazine	(4) Bromocriptine	
99.	Which of the following statements refers to Parkinson's disease?		
33.	(1) Age related dementia, distinct from vascular dementia, associated with brain infarction		
	(2) Progressive disorder of movement that occurs mainly in the elderly		
	(3) An inherited (autosomal dominant) disorder resulting in progressive brain degeneration, starting in adulthood and causing rapid deterioration and death		
	(4) Intracerebral thrombosis of centre of lesion	or haemorrhage resulting in rapid death of neurons in the	
100.	Which of the following is an u	ltra short acting (<6 hr) benzodiazepine?	
100.	(1) Alprazolam	(2) Diazepam	
	(3) Clonazepam	(4) Midazolam	
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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	
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.

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1.	What is the common name of a drug rep	resented by :
	5-ethyl-5-phyenylbarbituric acid?	
	(1) Cylcobarbitone	
	(2) Phenobarbitone	
	(3) Thiopentone	
	(4) Hexobarbital	
2.	What is the common name of the drug re	epresented by :
	N-diethylaminoacetyl-2,6-xylidine?	
	(1) Benzocaine	
	(2) Procaine	
	(3) Lignocaine	
	(4) Dibucaine	
3.	What is the common name of the drug r	epresented by ?
	4-Amino-N-(4,6-dimethyl-2-pyrimidinyl)benzene sulfonamide?	
	(1) Sulfamethizole	(2) Sulfamethazine
	(3) Sulfacetamide	(4) Sulfapyridine
4.	Which of the following metabolic pathy	vays is not a Phase-I reaction ?
	(1) Oxidation	(2) Reduction
	(3) Hydrolysis	(4) Acetylation
5.	6. 6-Mercaptopurine is a pharmcologically active metabolite of which of the following parent drug?	
	(1) Azathioprine	(2) Carbamazipine
	(3) Diazepam	(4) Quinidine

6.	What is the IUPAC name of E	agenol?
	(1) 4-chloro-3-methyl phenol	
	(2) Ispropyl-m-cresol	
	(3) 4-Allyl-2-methoxyphenol	
	(4) m-Dihyroxybenzen	
7.	What is the IUPAC name of F	Surosemide ?
	(1) 6-chloro-2H-1,2,4-benzot	hiadiazine-7-sulfonamide
	(2) 2-chloro-5-(1-hydroxy-3-	oxo-1-isoindolinyl)benzene suIfonamide
	(3) 4-chloro-2-(furan-2-ylme	thylamino)I-5-sulfamoylanthranilic acid
	(4) 2,4,7-Triamino-6-phenylp	oteridine
8.	A solvent used to separate mix	xture of components (mobile phase) is called:
	(1) Eluent	(2) Elute
	(3) Adsorbent	(4) Stationary phase
9.	Which of the following spray and tannins?	reagents can be used for detecting phenolic compounds
	(1) Dragendroff's reagent	
	(2) Ninhydrin in acetone	
	(3) 3,5-Dinitrobenzoic acid	
	(4) Ferric chloride	
10.	Which of the following is an o	example of a strong cation resin?
	(1) Sulfonated polystyrene	
	(2) Quaternary ammonium	
	(3) Cholestyramine	
	(4) Colistipol	
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11.	The value of Blood Urea Nitrogen (so following conditions?	erum) will show a decrease in which of the	
	(1) Liver failure		
	(2) Kidney disease		
	(3) Diabetes		
	(4) Myocardial infarction		
12.	An increase in the number of cells in a tidivision is called:	issue due to an increase in the frequency of cell	
	(1) Metaplasia		
	(2) Anaplasia		
	(3) Atrophy	•	
	(4) Hyperplasia		
13.	A painful conical thickening of the stratum corneum of the epidermis found principally over toe joints and between the toes, often caused by friction or pressure, is called:		
	(1) Blister	(2) Comedo	
	(3) Corn	(4) Eczema	
14.	A biaxial joint allowing movement in middle ear) is called:	the sagittal and frontal planes (e.g., thumb,	
	(1) Hinge joint	(2) Saddle joint	
	(3) Planar joint	(4) Ball & socket joint	
15.	Which of the following are "breathing m	uscles" ?	
	(1) Trapezius, rhomboid		
	(2) Biceps, femoris		
	(3) Erector spinae		
	(4) Diaphragm, intercostals		

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16.	Which law states: When two or more g a closed space, the total pressure exc individual gases?	ases, which do not react chemically, are kept in erted by the mixture is equal to the sum of
	(1) Grahm's law	
	(2) Dalton's law	
	(3) Charles law	
	(4) Boyle's law	
17.	The unit of dipole moment is:	
	(1) Dynes per cm	
	(2) Poise	
	(3) Dynes per square cm	
	(4) Debye	
18.	Which of the following is an example of	f anisotropic material ?
	(1) Graphite	(2) Glass
	(3) Plastics	(4) Quartz
19.	The temperature at which a polymorph is called:	ic substance changes from one form to another
	(1) Equilibrium temperature	
	(2) Triple point	
	(3) Boyle's temperature	
	(4) Transition temperature	
20.	An apparatus used to measure heat chan	ges during a chemical reaction is called:
	(1) Polarimeter	(2) Calorimeter
	(3) Colorimeter	(4) None of these
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21. Which of the following drugs is a H-2 blocker?

	(1) Mepyriamine		
	(2) Ranitidine		
	(3) Propranolol		
	(4) Chlorpromazine		
22.	Apoptosis is described by which of the fo	llowing statements?	
	(1) A disorganised disintegration of dama inflammatory response	aged cells resulting in products that trig	ger the
	(2) Formation of new capillaries from e being vascular endothelial growth fac		imulus
	(3) Cell suicide by a built-in self-destr programmed sequence of biochemica		etically
	(4) None of the above		
23.	Which of the following statements is TRU	JE ?	
	(1) Parasympathetic effect on salivary glands is dilation		
	(2) Sympathethetic effect on eye pupils is constriction		
	(3) Parasympathetic effect on heart atrial muscle is increased force		
	(4) Sympathetic effect on ciliary muscle is contraction		
24.	Which of the following drugs is a non-sel	ective beta agonist (sympathomimetic)	?
	(1) Norepinephrine	(2) Salbutamol	
	(3) Isoprenaline	(4) Phenylephrine	
25.	Which of the following proteins is used a	s a drug for the treatment of anaemia?	
	(1) Streptokinase	(2) Oxytocin	
	(3) Erythropoietin	(4) Interferons	
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26.	Which of the following is NOT	a potassium sparing diuretic?	
	(1) Amiloride		
	(2) Triamterene		
	(3) Spironolactone		
	(4) Furosemide		
27.	Which of the following drugs st	imulate insulin secretion and can cause hypoglycaemia?	
	(1) Tolbutamide		
	(2) Rosiglitazone		
	(3) Metformin		
	(4) Pioglitazone		
28.	Which of the following drugs i	s a Dopamine agonist ?	
	(1) Chlorpromazine	(2) Haloperidol	
	(3) Clopazine	(4) Bromocriptine	
29.	Which of the following stateme	ents refers to Parkinson's disease?	
	(1) Age related dementia, di infarction	stinct from vascular dementia, associated with brain	
	(2) Progressive disorder of mo	vement that occurs mainly in the elderly	
	(3) An inherited (autosomal dominant) disorder resulting in progressive brain degeneration, starting in adulthood and causing rapid deterioration and death		
	(4) Intracerebral thrombosis of centre of lesion	r haemorrhage resulting in rapid death of neurons in the	
30.	Which of the following is an ul	tra short acting (<6 hr) benzodiazepine?	
	(1) Alprazolam	(2) Diazepam	
	(3) Clonazepam	(4) Midazolam	
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31.	Numerical designation of Aerosol J	propellant 11 corresponds to which	of the following?
	(1) Trichloromono-fluoro methano	e	
	(2) Dichloro-difluoro methane		
	(3) Dichloro-tetrafluoro methane		
	(4) Tetrafluoroethane		
32.	Name the ingrediens, that function compression or encapsulation, in s	n as a bulking agent for low dose solid dosage forms:	actives, facilitating
	(1) Coating agents		
	(2) Disintegrants		
	(3) Lubricants		
	(4) Diluents		
33.	Which of the following climatic z 30 degree c, relative humidity 35 9		hot/dry zone, temp.
	(1) Zone 1	(2) Zone 2	
	(3) Zone 3	(4) Zone IV a	
34.	A drug having low solubility ar following?	nd high permeability is classified	d as which of the
	(1) BCS Class I	(2) BCS Class II	
	(3) BCS Class III	(4) BCS Class IV	
35.	A flow through cell type of dissolu USP Apparatus?	ution apparatus is described in whi	ch of the following
	(1) Apparatus 1		
	(2) Apparatus 2		
	(3) Apparatus 3		
	(4) Apparatus 4		
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36.	Post approval clinical trials are ty	pically designated as:
	(1) Phase I	(2) Phase II
	(3) Phase III	(4) Phase IV
37.	One fluid once contains approxim	nately how may milliliters?
	(1) 15	(2) 20
	(3) 30	(4) 60
38. A measure of the separation of the positive and negative electrical charge system; that is, a measure of the systems' overall polarity, is called:		
	(1) Zeta potential	
	(2) Dipole moment	
	(3) Electric potential	
	(4) Potential energy	
39.	How many parts of solvent are described as Freely soluble?	required for 1 part of solute, when the solubility is
	(1) From 1 to 10	
	(2) From 30 to 100	
	(3) From 1000 to 10000	
	(4) More than 10000	
40.	Which of the following filter med chemicals, such as strong acids?	lias is suitable for filtering solutions of highly reactive
	(1) Filter paper	
	(2) Membrane filters	
	(3) Glass wool filters	
	(4) Paper pulp filter	
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41.	What is the source of Guar g	ım ?
	(1) Dried gum obtained from of Acacia (Leguminosae)	n the stem & branches of Acacia senegal & other species
	(2) Ground endosperms of C	yamposis tetragonolobus
	(3) Artificially produced by on glucose.	the pure culture fermentation of Xanthomonas campestris
	(4) Dried ripe seeds of Plata	go ovata & other species (Plantaginaceae)
42.	Dimeric compounds formed propene derivative; optically	essentially by the union of two molecules of a pheny active compounds, are commonly named as:
	(1) Lignans	
	(2) Lignin	
	(3) Xanthum	
	(4) Glycosides	
43.	Which of the following volutions components?	tile oils contain a high percentage of phenols as primary
	(1) Coriander	(2) Lemon
	(3) Clove	(4) Turpentine
44.	Which of the following is an	oleo-gum-resin?
	(1) Chamomiles	(2) Asafoetida
	(3) Cardamom	(4) Eucalyptus
45.	Which of the following is NO	OT an example of a steroidal saponin?
	(1) Quillaic acid	
	(2) Sarsapogenin	
	(3) Dioscin	
	(4) Digitoxin	
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				- (0 -	Aeschrion	excelsa)
46.	Stemwood of Picrasma excelsa (Simaroubaceae) is commonly known as	(Picroena s :	excelsa	or	Aeschion	checisay
	(1) Clove					
	(2) Cinnamon					
	(3) Ginger					
	(4) Quassia					
47.	Test for stomatal index is employed to drugs?	distinguisl	h leaflets	of w	which of the	following
	(1) Senna					
	(2) Belladonna					
	(3) Digitalis					
	(4) Cocoa					
48.	Which of the following drugs contains s	teriodal alk	aloids ?			
	(1) Colchicine					
	(2) Quinine					
	(3) Solanum .					
	(4) Vinca					
49.	Which of the following is NOT an exam	ple of an e	ssential o	il ?		
	(1) Sunflower oil	(2) Peppe				
	(3) Eucalyptus oil	(4) Lemo				
50.	Which of the following polysaccharides	is primaril	y of anim	al or	igin ?	
	(1) Alpha amylose	(2) Cellu			J	
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		1. N. refers to which of the following	amino acids?
51.	A 3-letter code Asn and t-letter co	de N refers to which of the following	,
	(1) Alanine		
	(2) Arginine		ť
	(3) Asparagine		
	(4) Aspartic acid		
52.	Which of the following enzymes hydrolysis?	acts in joining two substrates at the	expense of ATP
	(1) Transferases		
	(2) Hydrolases		
	(3) Lyases		
	(4) Ligases		
53.	Which of the following indicate colour in alkaline solutions?	ors gives yellow colour in acidic s	solutions and red
	(1) Phenol red	(2) Methyl red	
	(3) Phenolphthalein	(4) Litmus	
54.	Which of the following pairs of co	olours is NOT complementary?	
	(1) Violet and yellow	(2) Red and green	
	(3) Blue and yellow	(4) Blue and orange	
55.	Number of milligrams of potassiugram of the fat or oil is called:	um hydroxide required to neutralize	the free acid in 1
	(1) Acetyl value		
	(2) Saponification value		
	(3) Acid value		
	(4) Iodine value		
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56.	Which of the following is a tri-carboxyli	e acid?	
	(1) Oxalic acid		
	(2) Succinic acid		
	(3) Adipic acid		
	(4) Citric acid		
57.	Sucrose is an example of :		
	(1) Monosaccharides		
	(2) Disaccharides		
	(3) Oligosaccharides		
	(4) Polysaccharides		
58.	Which of the following is a dihydric alco	ohol?	
	(1) Phenol		
	(2) Paracetamol		
	(3) Resorcinol		
	(4) Phloroglucinol		
59.	Which of the following is a polynuclear h	ydrocarbon, containing 3 or more fused	rings ?
	(1) Naphthalene		
	(2) Propranolol		
	(3) Tolnaftate		
	(4) Amitryptyline		
60.	Which of the following is an example of	a fused ring hetrocylic compound ?	
	(1) Indole	(2) Pyrrole	
	(3) Pyrimidine	(4) Furan	
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- **61.** Which of the following schedules gives the list of official books for Ayurveda, Sidda and Unani Systems of Medicine?
 - (1) Schedule I to the Drugs and Cosmetics Act, 1940
 - (2) Schedule II to the Drugs and Cosmetics Act, 1940
 - (3) Schedule A to the Drugs and Cosmetics Rules, 1945
 - (4) Schedule C to the Drugs and Cosmetics Rules, 1945
- **62.** Which of the following persons is an NOT an ex-officio member of the Pharmacy Council of India?
 - (1) One teacher of any of the subjects (Pharmaceutical chemistry, pharmacy, pharmacology and pharmacognosy) from amongst persons on the teaching staff of an Indian University or a college affiliated thereto, which grants a degree or diploma in pharmacy
 - (2) Director General Health Services
 - (3) Drugs Controller India
 - (4) Director of the Central Drugs Laboratory
- **63.** What is the term of a patent in India, as per the Patents Act, 1970 & rules thereunder?
 - (1) Twenty years from the date of grant of the patent
 - (2) Twenty years from the date of filing of the application for the patent
 - (3) Fourteen years from the date of grant of the patent
 - (4) Seven years from the date of grant of the patent
- **64.** What the "proof strength" as per the Medicinal and Toilet Preparations Act, 1955 & rules thereunder?
 - (1) Straight up to two times alcohol by volume
 - (2) Absolute alcohol
 - (3) 57.1 % v/v of absolute alcohol
 - (4) 90 % v/v of absolute alcohol

65.	As per the Narcotic Drugs and Psychot the definition of Opium derivative DOE	ropic Substances Act, 1985 & rules thereunder S NOT include which of the following:
	(1) Medicinal opium	
	(2) Prepared opium	
	(3) All preparations containing more t diacetylmorphine	han 0.2 percent of morphine or containing any
	(4) Seeds of the opium poppy	
66.	is, the salt or ester, are of the same dos identical in strength and concentration applicable standards (i.e., strength, qu	s that contain the same active ingredient(s), that age form, use the same route of administration in, and meet the same or compendial or other uality, purity and identity) but may differ in configuration, release mechanisms, packaging ertain limits, labeling, are called:
	(1) Chemical equivalents	(2) Pharmaceutical equivalents
	(3) Pharmaceutical alternatives	(4) Bioequivalent
67.	Which of the following pharmacokinet using the urinary data?	ic parameters cannot be determined exclusively
	(1) Biological Half life	(2) Bioequivalence
	(3) Rate of elimination	(4) Apparent volume of distribution
68.	When conducting any pharmacokinetic blood or urine samples need to be collected.	study, what should be maximum time for which eted?
	(1) 4 biological half lives	(2) 8 biological half lives
	(3) 10 biological half lives	(4) Any duration of time
69.	solvents [usually a base solution of p	ed for external use, containing highly volatile yroxyline (soluble gun-cotton) in a mixture of we either a mechanical or therapeutic film:
	(1) Decoctions	(2) Elixirs
	(3) Infusions	(4) Collodions
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70.	Name the dilute solutions containing water soluble extracts of vegetable drugs, prepared by macerating drugs in water for short periods of time:	
	(1) Infusions	(2) Decoctions
	(3) Percolations	(4) Glycerins
71.	Semisolids that do not flow at low shear elastic solids) but flow like liquids above	ar stress (exhibiting reversible deformation like their yield value (i.e., yield stress) are termed:
	(1) Newtonian	(2) Pseudoplastic
	(3) Dilatant	(4) Plastic bodies
72.	Which of the following liquids has the h	ighest surface tension?
	(1) Mercury	(2) Water
	(3) Oleic acid	(4) Hexane
73.	When there is little attaction between the system is called:	ne dispersed phase and the dispersion medium,
	(1) Lyophilic dispersions	
	(2) Lyophobic dispersions	
	(3) Suspensions	
	(4) Emulsions	
74.	Diameter of a sphere having the same g known as:	gravitational settling velocity as the particle, is
	(1) Martin's diameter	(2) Sieve diameter
	(3) Stokes diameter	(4) Feret's diameter
75.	Which of the following preservatives has	antifungal action?
	(1) Methyl paraben	(2) Benzyl alcohol
	(3) Cresol	(4) Ethyl alcohol
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		of its initial value,
76.	Time taken to reduce a microbial p under specified conditions, is know	oopulation by 1 logarithm, or 90% of its initial value, on as :
	(1) Half life	(2) Incubation value
	(3) Z-value	(4) D-value
77.	Which of the following biologic sterilization?	cal indicators is suitable for evaluation of steam
	(1) Bacillus pumulis	
	(2) Bacillus subtilis	
	(3) Bacillus atrophaeus	
	(4) Bacillus anthracis	
78.	Which of the following preparation	ns is free of preservatives?
	(1) Multi dose eye drops	
	(2) Small volume parenterals	
	(3) Large volume parenterals	
	(4) Parenterals prepared by sterile	filtration
79.	punches, reduce interparticle frict	of the tablet material to the surface of the dies and tion, facilitate the ejection of tablets from the dies flow of the tablet granulation, are called:
	(1) Binders	(2) Disintegrants
	(3) Lubricants	(4) Glidants
80.	A capsule fill weight of 1425 m corresponds to which of the follow	g, corresponding to powder density of 1.5 gm/ml, ring capsule sizes?
	(1) Size 4	
	(2) Size 1	
	(3) Size 0	
	(4) Size 00	
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81.	Which of the following anti-epileptic seizures?	c drugs is used in Tonic-clonic (grand mai)
	(1) Carbamazepine	
	(2) Ethosuximide	
	(3) Valporate	
	(4) Diazepam	
82.	Which of the following drugs is an Opi	od antagonist ?
	(1) Morphine	
	(2) Codeine	
	(3) Meperidine	
	(4) Naltrexone	
83.	Which of the following drugs has a VE	RY STRONG dependence liability?
	(1) Caffeine	
	(2) Cannabis	
	(3) Cocaine	
	(4) LSD	
84.	Which of the following drugs is a short	t acting anaesthetic ?
	(1) Procaine	(2) Lignocaine
	(3) Tetracaine	(4) Bupivacaine
85.	Which of the following antibiotics is (e.g., Neisseria gonorrhoea)?	a drug of first choice for gram negative cocci
	(1) Penicillin G	(2) Penicllin V
	(3) Flucloxacillin	(4) Amoxicillin

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86.	Which of the following diseases is cau	used by a RNA Virus?
	(1) Smallpox	
	(2) Herpes	
	(3) AIDS	
	(4) Mild cold or Flu	
87.	Which of the following drugs is used i	in Tapeworm infections ?
	(1) Praziquantel	
	(2) Mebendazole	
	(3) Levamisole	
	(4) Albendazole	
88.	Which of the following is NOT a char-	acteristic of cancer cells?
	(1) Uncontrolled proliferation	
	(2) Ability to metastasise	
	(3) Lack of capacity to differentiate	
	(4) Non invasiveness	
89.	Which of the following is a drug metal	bolising enzyme inducer ?
	(1) Phenobarbital	
	(2) Chloramphenicol	
	(3) Cimetidine	
	(4) Erythromycin	
90.	Which of the following drugs is an intr	ravenous general anaesthetic?
	(1) Halothane	(2) Isoflurane
	(3) Nitrous oxide	(4) Propofol
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91.	What is the range of visible spectrum?		
	(1) 1 to 180 nm	(2) 180 to 400 nm	
	(3) 400 to 750 nm	(4) More than 750 nm	
92.	Emission of light by certain materials, w	hen they are relatively cool, is called:	
	(1) Fluorescence	(2) Phosphorescence	
	(3) Incandescence	(4) Luminiscence	
93.		rbed by ground state atoms, atoms get excited absorb specific wavelenght of light that at	
	(1) Flame photometry		
	(2) Atomic absorption spectroscopy		
	(3) Infras red spectroscopy		
	(4) Fluorimetry		
94.	In FTIR, which of the following regions	represent vibrations of the free –OH group?	
	(1) 2960 - 2850 per cm		
	(2) 1500 - 1350 per cm	~	
	(3) 3700 to 3500 per cm		
	(4) 1410 - 1300 per cm		
95.	A spectroscopic technique, typically use (also rotational & other low frequency m	ed to determine vibration modes of molecule odes) is called:	es
	(1) Atomic absorption spectroscopy		
	(2) Visible spectroscopy		
	(3) FTIR spectroscopy		
	(4) Raman Spectroscopy		
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96.	Typical effects such as cell elongation, giving an increase in stem length, inhibition root growth, adventitious root production and fruit - setting in the absence pollination, can be attributed to:		
	(1) Gibberlins (2) Auxins	(3) Cytokinins (4) Abscisic acid	
97.	What is the source of Anhydrous I	anolin ?	
	(1) By melting & purifying the ho	neycomb of Apis mellifica & other bees	
	(2) From the ground kernels of the	e obroma cocoa by hot expression	
	(3) Purified fat like substance prep	pared from the wool of the sheep Ovis aries (Bovidae)	
	(4) Dried ripe seeds of Linum usi	tatissium	
98.			
	(1) Pectins (2) Algin	(3) Chitins (4) Mucilages	
99.	What is the source of Jute?		
	(1) Pericyclic fibres of the stem o	f Linum usitatissimum (Lineaceae)	
	(2) Pericyclic fibres of the stem of	f Cannibis sativa (Cannabinaceae)	
	(3) Strands of phloem fibres from species of Corchorus (Tiliace)	om the stem bark of Corchorus capsularis & other	
	(4) Epidermal trichomes of the species of Gossypium (Malva	seeds of Gossypium herbaceae & other cultivated ceae)	
100.	Which of the following types of S		
	Hilum in the form of a point; eccentric about 1/3 to 14. Concentric striations we marked; some rings, however more distinct than others. Mostly simple granul hatchet-, wedge or musel-shaped. A few compound grannules of 2 or 3 compone firmly fixed together.		
	(1) Maize starch	(2) Wheat starch	
	(3) Rice starch	(4) Potato starch	

Total No. of Printed Pages: 21

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D

PG-EE-July, 2024

SET-Y

10180

SUBJECT: Pharmaceutical Science

	Sr. No		
Time : 1¼ Hours Roll No. (in figures)	Max. Marks : 100 (in words)	Total Questions : 100	
Name			
Father's Name	Mother's Name		
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 guestion booklet itself. Answers *must not* be ticked in the guestion 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.	Which of the following anti-er seizures?	ileptic drugs is used in Tonic-clonic (grand mal)
	(1) Carbamazepine	
	(2) Ethosuximide	
	(3) Valporate	
	(4) Diazepam	
2.	Which of the following drugs is a	n Opiod antagonist?
	(1) Morphine	
	(2) Codeine	
	(3) Meperidine	
	(4) Naltrexone	
3.	Which of the following drugs has	a VERY STRONG dependence liability?
	(1) Caffeine	· · · · · · · · · · · · · · · · · · ·
	(2) Cannabis	
	(3) Cocaine	
	(4) LSD	
4.	Which of the following drugs is a	short acting anaesthetic ?
	(1) Procaine	(2) Lignocaine
	(3) Tetracaine	(4) Bupivacaine
5.	Which of the following antibiot (e.g., Neisseria gonorrhoea)?	cs is a drug of first choice for gram negative cocci
	(1) Penicillin G	(2) Penicllin V
	(3) Flucloxacillin	(4) Amoxicillin
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6.	Which of the following diseases is caused	d by a RNA Virus?
	(1) Smallpox	
	(2) Herpes	
	(3) AIDS	
	(4) Mild cold or Flu	
7.	Which of the following drugs is used in	Γapeworm infections ?
	(1) Praziquantel	
	(2) Mebendazole	
	(3) Levamisole	
	(4) Albendazole	
8.	Which of the following is NOT a charact	eristic of cancer cells?
	(1) Uncontrolled proliferation	
	(2) Ability to metastasise	
	(3) Lack of capacity to differentiate	
	(4) Non invasiveness	
9.	Which of the following is a drug metabo	lising enzyme inducer?
	(1) Phenobarbital	
	(2) Chloramphenicol	
	(3) Cimetidine	
	(4) Erythromycin	
10.	Which of the following drugs is an intrav	venous general anaesthetic ?
	(1) Halothane	(2) Isoflurane
	(3) Nitrous oxide	(4) Propofol
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	(1) Trichloromono-fluoro methane	
	(2) Dichloro-difluoro methane	
	(3) Dichloro-tetrafluoro methane	
	(4) Tetrafluoroethane	
12.	Name the ingrediens, that function as a compression or encapsulation, in solid d	bulking agent for low dose actives, facilitating osage forms:
	(1) Coating agents	
	(2) Disintegrants	
	(3) Lubricants	
	(4) Diluents	
13.	Which of the following climatic zones (30 degree c, relative humidity 35 % RH	as per ICH guidelines) are hot/dry zone, temp.
	(1) Zone 1	(2) Zone 2
	(3) Zone 3	(4) Zone IV a
14.	A drug having low solubility and hig following?	th permeability is classified as which of the
	(1) BCS Class I	(2) BCS Class II
	(3) BCS Class III	(4) BCS Class IV
15.	A flow through cell type of dissolution a USP Apparatus?	apparatus is described in which of the following
	(1) Apparatus 1	
	(2) Apparatus 2	
	(3) Apparatus 3	
	(4) Apparatus 4	
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11. Numerical designation of Aerosol propellant 11 corresponds to which of the following?

*				
16	. Post approval clinical trials are	ypically designated as:		
	(1) Phase I	(2) Phase II		
	(3) Phase III	(4) Phase IV		
17	One fluid once contains approxi	One fluid once contains approximately how may milliliters?		
17.	(1) 15	(2) 20		
	(3) 30	(4) 60		
18.	A measure of the separation of	the positive and negative electrical charges within a systems' overall polarity, is called:		
	(1) Zeta potential			
	(2) Dipole moment			
	(3) Electric potential			
	(4) Potential energy			
19.	How many parts of solvent are described as Freely soluble?	required for 1 part of solute, when the solubility is		
	(1) From 1 to 10			
	(2) From 30 to 100			
	(3) From 1000 to 10000			
	(4) More than 10000			
20.	Which of the following filter mechanicals, such as strong acids?	dias is suitable for filtering solutions of highly reactive		
	(1) Filter paper			
	(2) Membrane filters			
	(3) Glass wool filters			
	(4) Paper pulp filter			
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- 21. Which of the following schedules gives the list of official books for Ayurveda, Sidda and Unani Systems of Medicine?
 - (1) Schedule I to the Drugs and Cosmetics Act, 1940
 - (2) Schedule II to the Drugs and Cosmetics Act, 1940
 - (3) Schedule A to the Drugs and Cosmetics Rules, 1945
 - (4) Schedule C to the Drugs and Cosmetics Rules, 1945
- 22. Which of the following persons is an NOT an ex-officio member of the Pharmacy Council of India?
 - (1) One teacher of any of the subjects (Pharmaceutical chemistry, pharmacy, pharmacology and pharmacognosy) from amongst persons on the teaching staff of an Indian University or a college affiliated thereto, which grants a degree or diploma in pharmacy
 - (2) Director General Health Services
 - (3) Drugs Controller India
 - (4) Director of the Central Drugs Laboratory
- 23. What is the term of a patent in India, as per the Patents Act, 1970 & rules thereunder?
 - (1) Twenty years from the date of grant of the patent
 - (2) Twenty years from the date of filing of the application for the patent
 - (3) Fourteen years from the date of grant of the patent
 - (4) Seven years from the date of grant of the patent
- **24.** What the "proof strength" as per the Medicinal and Toilet Preparations Act, 1955 & rules thereunder?
 - (1) Straight up to two times alcohol by volume
 - (2) Absolute alcohol
 - (3) 57.1 % v/v of absolute alcohol
 - (4) 90 % v/v of absolute alcohol

25.	As per the Narcotic Drugs and Psychote the definition of Opium derivative DOE	ropic Substances Act, 1985 & rules thereunder, S NOT include which of the following:
	(1) Medicinal opium	
	(2) Prepared opium	
	(3) All preparations containing more the diacetylmorphine	nan 0.2 percent of morphine or containing any
	(4) Seeds of the opium poppy	
26.	is, the salt or ester, are of the same doss identical in strength and concentration applicable standards (i.e., strength, qu	s that contain the same active ingredient(s), that age form, use the same route of administration, and meet the same or compendial or other hality, purity and identity) but may differ in configuration, release mechanisms, packaging, ertain limits, labeling, are called:
	(1) Chemical equivalents	(2) Pharmaceutical equivalents
	(3) Pharmaceutical alternatives	(4) Bioequivalent
27.	Which of the following pharmacokineti using the urinary data?	c parameters cannot be determined exclusively
	(1) Biological Half life	(2) Bioequivalence
	(3) Rate of elimination	(4) Apparent volume of distribution
28.	When conducting any pharmacokinetic s blood or urine samples need to be collec	study, what should be maximum time for which ted?
	(1) 4 biological half lives	(2) 8 biological half lives
	(3) 10 biological half lives	(4) Any duration of time
29.		I for external use, containing highly volatile roxyline (soluble gun-cotton) in a mixture of either a mechanical or therapeutic film:
	(1) Decoctions	(2) Elixirs
	(3) Infusions	(4) Collodions
PG-EE	E-July-2024/(Pharmaceutical Science)(SET-	·Y)/(D)

30.	Name the dilute solutions containing prepared by macerating drugs in water for	water soluble extracts of vegetable drugs, or short periods of time:
	(1) Infusions	(2) Decoctions
	(3) Percolations	(4) Glycerins
31.	What is the range of visible spectrum?	
	(1) 1 to 180 nm	(2) 180 to 400 nm
	(3) 400 to 750 nm	(4) More than 750 nm
32.	Emission of light by certain materials, w	then they are relatively cool, is called:
	(1) Fluorescence	(2) Phosphorescence
	(3) Incandescence	(4) Luminiscence
33.	The technique in which radition is absorbed by ground state atoms, atoms get excited, not dependent upon temperature, and absorb specific wavelenght of light that are characteristic of the element, is called:	
	(1) Flame photometry	•
	(2) Atomic absorption spectroscopy	
	(3) Infras red spectroscopy	
	(4) Fluorimetry	
34.	In FTIR, which of the following regions	represent vibrations of the free –OH group?
	(1) 2960 - 2850 per cm	(2) 1500 - 1350 per cm
	(3) 3700 to 3500 per cm	(4) 1410 - 1300 per cm
35.	A spectroscopic technique, typically us (also rotational & other low frequency n	ed to determine vibration modes of molecules nodes) is called:
	(1) Atomic absorption spectroscopy	(2) Visible spectroscopy
	(3) FTIR spectroscopy	(4) Raman Spectroscopy
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36.	Typical effects such as cell elongation, giving an increase in stem length, inhibition of root growth, adventitious root production and fruit - setting in the absence of pollination, can be attributed to:
	(1) Gibberlins (2) Auxins (3) Cytokinins (4) Abscisic acid
37.	What is the source of Anhydrous Lanolin?
	(1) By melting & purifying the honeycomb of Apis mellifica & other bees
	(2) From the ground kernels of the obroma cocoa by hot expression
	(3) Purified fat like substance prepared from the wool of the sheep Ovis aries (Bovidae)
	(4) Dried ripe seeds of Linum usitatissium
38.	Give the common name of polysaccharide complexes containing uronic acids, which occur in the middle lamellae of cell walls and are abundant in fruits (e.g., apples, oranges) and roots (e.g., beets and gentian):
	(1) Pectins (2) Algin (3) Chitins (4) Mucilages
39.	What is the source of Jute?
	(1) Pericyclic fibres of the stem of Linum usitatissimum (Lineaceae)
	(2) Pericyclic fibres of the stem of Cannibis sativa (Cannabinaceae)
	(3) Strands of phloem fibres from the stem bark of Corchorus capsularis & other

40. Which of the following types of Starch possess?

species of Gossypium (Malvaceae)

species of Corchorus (Tiliaceae)

Hilum in the form of a point; eccentric about 1/3 to 14. Concentric striations well marked; some rings, however more distinct than others. Mostly simple granules, hatchet-, wedge or musel-shaped. A few compound grannules of 2 or 3 components firmly fixed together.

(4) Epidermal trichomes of the seeds of Gossypium herbaceae & other cultivated

(1) Maize starch

(2) Wheat starch

(3) Rice starch

(4) Potato starch

46.	Which of the following is a tri-carboxyl	ic acid ?
	(1) Oxalic acid	
	(2) Succinic acid	
	(3) Adipic acid	
	(4) Citric acid	
47.	Sucrose is an example of :	
	(1) Monosaccharides	
	(2) Disaccharides	
	(3) Oligosaccharides	
	(4) Polysaccharides	
48.	Which of the following is a dihydric alc	ohol?
	(1) Phenol	
	(2) Paracetamol	
	(3) Resorcinol	
	(4) Phloroglucinol	
49.	Which of the following is a polynuclear	hydrocarbon, containing 3 or more fused rings
	(1) Naphthalene	
	(2) Propranolol	
	(3) Tolnastate	
	(4) Amitryptyline	
50.	Which of the following is an example of	f a fused ring hetrocylic compound?
	(1) Indole	(2) Pyrrole
	(3) Pyrimidine	(4) Furan
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51.	The value of Blood Urea Nitrogen (se following conditions?	erum) will show a decrease in which of the
	(1) Liver failure	
	(2) Kidney disease	
	(3) Diabetes	
	(4) Myocardial infarction	
52.	An increase in the number of cells in a tidivision is called:	ssue due to an increase in the frequency of cell
	(1) Metaplasia	
	(2) Anaplasia	
	(3) Atrophy	
	(4) Hyperplasia	
53.		am corneum of the epidermis found principally n caused by friction or pressure, is called:
	(1) Blister	(2) Comedo
	(3) Corn	(4) Eczema
54.	A biaxial joint allowing movement in middle ear) is called:	the sagittal and frontal planes (e.g., thumb,
	(1) Hinge joint	(2) Saddle joint
	(3) Planar joint	(4) Ball & socket joint
55.	Which of the following are "breathing m	uscles" ?
	(1) Trapezius, rhomboid	
	(2) Biceps, femoris	
	(3) Erector spinae	
	(4) Diaphragm, intercostals	
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	When two or more gas	ses, which do not react chemically, are kept in ted by the mixture is equal to the sum of
56.	a closed space, the total pressure exer	ses, which do not react chemically, ted by the mixture is equal to the sum of
	individual gases ?	
	(1) Grahm's law	
	(2) Dalton's law	
	(3) Charles law	
	(4) Boyle's law	
57.	The unit of dipole moment is:	
	(1) Dynes per cm	
	(2) Poise	
	(3) Dynes per square cm	
	(4) Debye	
58.	Which of the following is an example of	anisotropic material ?
	(1) Graphite	(2) Glass
	(3) Plastics	(4) Quartz
59.	The temperature at which a polymorphi is called:	c substance changes from one form to another
	(1) Equilibrium temperature	
	(2) Triple point	
	(3) Boyle's temperature	
	(4) Transition temperature	
60.	An apparatus used to measure heat chan	ges during a chemical reaction is called:
	(1) Polarimeter	(2) Calorimeter
	(3) Colorimeter	(4) None of these
PG-E	E-July-2024/(Pharmaceutical Science)(SET	'-Y)/(D)

61.	What is the common name of a	drug represented by :
	5-ethyl-5-phyenylbarbituric acid	1?
	(1) Cylcobarbitone	
	(2) Phenobarbitone	
	(3) Thiopentone	
	(4) Hexobarbital	
62.	What is the common name of the	e drug represented by:
	N-diethylaminoacetyl-2,6-xylid	ine ?
	(1) Benzocaine	
	(2) Procaine	
	(3) Lignocaine	
	(4) Dibucaine	
63.	What is the common name of th	e drug represented by ?
	4-Amino-N-(4,6-dimethyl-2-py	rimidinyl)benzene sulfonamide?
	(1) Sulfamethizole	(2) Sulfamethazine
	(3) Sulfacetamide	(4) Sulfapyridine
64.	Which of the following metabo	ic pathways is not a Phase-I reaction?
	(1) Oxidation	(2) Reduction
	(3) Hydrolysis	(4) Acetylation
65.	6-Mercaptopurine is a pharmoparent drug?	ologically active metabolite of which of the following
	(1) Azathioprine	(2) Carbamazipine
	(3) Diazepam	(4) Quinidine
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6 6.	What is the IUPAC name of Eugenol?	•
	(1) 4-chloro-3-methyl phenol	
	(2) Ispropyl-m-cresol	
	(3) 4-Allyl-2-methoxyphenol	
	(4) m-Dihyroxybenzen	
67.	What is the IUPAC name of Furosemic	le ?
	(1) 6-chloro-2H-1,2,4-benzothiadiazin	e-7-sulfonamide
	(2) 2-chloro-5-(1-hydroxy-3-oxo-1-iso	indolinyl)benzene suIfonamide
	(3) 4-chloro-2-(furan-2-ylmethylamino	o)I-5-sulfamoylanthranilic acid
	(4) 2,4,7-Triamino-6-phenylpteridine	
68.	A solvent used to separate mixture of c	omponents (mobile phase) is called:
	(1) Eluent	(2) Elute
	(3) Adsorbent	(4) Stationary phase
69.	Which of the following spray reagents and tannins?	can be used for detecting phenolic compound
	(1) Dragendroff's reagent	
	(2) Ninhydrin in acetone	
	(3) 3,5-Dinitrobenzoic acid	
	(4) Ferric chloride	
70.	Which of the following is an example o	f a strong cation resin?
	(1) Sulfonated polystyrene	
	(2) Quaternary ammonium	
	(3) Cholestyramine	
	(4) Colistipol	
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71.	What is the source of Guar gum?				
	(1) Dried gum obtained from the stem of Acacia (Leguminosae)	n & branches of Acacia senegal & other species			
	(2) Ground endosperms of Cyamposis tetragonolobus				
	(3) Artificially produced by the pure on glucose.	culture fermentation of Xanthomonas campestris			
	(4) Dried ripe seeds of Platago ovata &	the other species (Plantaginaceae)			
72.	Dimeric compounds formed essential propene derivative; optically active con	ly by the union of two molecules of a pheny mpounds, are commonly named as:			
	(1) Lignans				
	(2) Lignin	•			
	(3) Xanthum				
	(4) Glycosides				
73.	Which of the following volatile oils components?	ontain a high percentage of phenols as primary			
	(1) Coriander	(2) Lemon			
	(3) Clove	(4) Turpentine			
74.	Which of the following is an oleo-gum-	resin ?			
	(1) Chamomiles	(2) Asafoetida			
	(3) Cardamom	(4) Eucalyptus			
75.	Which of the following is NOT an exar	nple of a steroidal saponin?			
	(1) Quillaic acid				
	(2) Sarsapogenin				
	(3) Dioscin	•			
	(4) Digitoxin				
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		Aeschrion excelsa)
76.	Stemwood of Picrasma excelsa (Simaroubaceae) is commonly known a	(Picroena excelsa of Account
	(1) Clove	
	(2) Cinnamon	
	(3) Ginger	
	(4) Quassia	
77.	Test for stomatal index is employed to drugs?	distinguish leaflets of which of the following
	(1) Senna	
	(2) Belladonna	
	(3) Digitalis	•
	(4) Cocoa	
78.	Which of the following drugs contains s	steriodal alkaloids ?
	(1) Colchicine	(2) Quinine
	(3) Solanum	(4) Vinca
79.	Which of the following is NOT an exam	aple of an essential oil?
	(1) Sunflower oil	
	(2) Peppermint oil	
	(3) Eucalyptus oil	
	(4) Lemon oil	
80.	Which of the following polysaccharides	s is primarily of animal origin?
	(1) Alpha amylose	(2) Cellulose
	(3) Glycogen	(4) Inulins
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81. Which of the following drugs is a H-2 blocker?

	(1) Mepyriamine		
	(2) Ranitidine		
	(3) Propranolol		
	(4) Chlorpromazine		
82.	Apoptosis is described by which of the f	ollowing statements?	
	(1) A disorganised disintegration of dan inflammatory response	naged cells resulting in products that trig	ger the
	(2) Formation of new capillaries from being vascular endothelial growth fa		timulus
	(3) Cell suicide by a built-in self-des programmed sequence of biochemic		etically
	(4) None of the above		
83.	Which of the following statements is TR	UE ?	
	(1) Parasympathetic effect on salivary g	lands is dilation	
	(2) Sympathethetic effect on eye pupils	is constriction	
	(3) Parasympathetic effect on heart atria	l muscle is increased force	
	(4) Sympathetic effect on ciliary muscle	is contraction	
84.	Which of the following drugs is a non-se	elective beta agonist (sympathomimetic)	?
	(1) Norepinephrine	(2) Salbutamol	
	(3) Isoprenaline	(4) Phenylephrine	
85.	Which of the following proteins is used	as a drug for the treatment of anaemia?	
	(1) Streptokinase	(2) Oxytocin	
	(3) Erythropoietin	(4) Interferons	
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86.	Which of the following is N	OT a potassium sparing diuretic?
	(İ) Amiloride	
	(2) Triamterene	
	(3) Spironolactone	
	(4) Furosemide	
87.	Which of the following drug	s stimulate insulin secretion and can cause hypoglycaemia?
	(1) Tolbutamide	
	(2) Rosiglitazone	
	(3) Metformin	
	(4) Pioglitazone	
88.	Which of the following dru	igs is a Dopamine agonist?
	(1) Chlorpromazine	(2) Haloperidol
	(3) Clopazine	(4) Bromocriptine
89.	Which of the following sta	tements refers to Parkinson's disease?
	(1) Age related dementia infarction	a, distinct from vascular dementia, associated with brain
	(2) Progressive disorder o	f movement that occurs mainly in the elderly
	(3) An inherited (autoso degeneration, starting	omal dominant) disorder resulting in progressive brain in adulthood and causing rapid deterioration and death
	(4) Intracerebral thrombo centre of lesion	sis or haemorrhage resulting in rapid death of neurons in the
90	. Which of the following is	an ultra short acting (<6 hr) benzodiazepine?
	(1) Alprazolam	(2) Diazepam
	(3) Clonazepam	(4) Midazolam
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91.	Semisolids that do not flow at low shear elastic solids) but flow like liquids above	ar stress (exhibiting reversible deformation their yield value (i.e., yield stress) are term	ı like ed :
	(1) Newtonian		
	(2) Pseudoplastic		
	(3) Dilatant		
	(4) Plastic bodies		
92.	Which of the following liquids has the h	ighest surface tension?	
	(1) Mercury	(2) Water	
	(3) Oleic acid	(4) Hexane	
93.	When there is little attaction between the system is called:	ne dispersed phase and the dispersion med	lium,
	(1) Lyophilic dispersions		
	(2) Lyophobic dispersions		
	(3) Suspensions		
	(4) Emulsions		
94.	Diameter of a sphere having the same known as:	gravitational settling velocity as the partic	le, is
	(1) Martin's diameter	(2) Sieve diameter	
	(3) Stokes diameter	(4) Feret's diameter	
95.	Which of the following preservatives ha	s antifungal action ?	
	(1) Methyl paraben		
	(2) Benzyl alcohol		
	(3) Cresol		
	(4) Ethyl alcohol		
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		or 90% of its initial value,
96.	Time taken to reduce a mi under specified conditions	
	(1) Half life	(2) Incubation value
	(3) Z-value	(4) D-value
97.	Which of the following sterilization?	biological indicators is suitable for evaluation of steam
	(1) Bacillus pumulis	
	(2) Bacillus subtilis	
	(3) Bacillus atrophaeus	
	(4) Bacillus anthracis	
98.	Which of the following pro	parations is free of preservatives?
	(1) Multi dose eye drops	
	(2) Small volume parenter	als
	(3) Large volume parenter	als
	(4) Parenterals prepared b	y sterile filtration
99.	punches, reduce interpart	hesion of the tablet material to the surface of the dies and cle friction, facilitate the ejection of tablets from the die e rate of flow of the tablet granulation, are called:
	(1) Binders	(2) Disintegrants
	(3) Lubricants	(4) Glidants
100.	A capsule fill weight of corresponds to which of the	1425 mg, corresponding to powder density of 1.5 gm/ml. e following capsule sizes?
	(1) Size 4	
	(2) Size 1	
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PG-EF	E-July-2024/(Pharmaceutical	Science)(SFT-V)/(D)

Q. NO.	Α	В	С	m dated 18.07 D
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2	3			3
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5	3	4	11	4
6	4	2	3	3
7	1	4	3	1
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9	2	4	4	1
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11	- 1	3	1	1
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	4	4	4	4
15			2	4
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17	1	3	4	
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19	1	3	4	1
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21	1	3	2	1
22	4	4	3	1
23	3	1	1	2
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25	4	3	3	4
26	2	4	4	2
27	4	2	1	4
28	1	3	4	3
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30	2	1	4	1
	3	1	1	3
31			4	4
32	4	4	3	2
33	1	3		
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45	1	4	1	3
46	3	4	4	4
		3	1	2
47	3			3
48	1	2	3	
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93	3	1	2	2
94	2	3	3	3
95	4	3	4	1
96	4	4	2	4
97	3	1	3	2
	2	4	1	3
98			3	3
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