Con. 2881 Biz. Entrance Test Exemination April 2012 Faculty 55 lence

Bio-Analytices Sciences.

[Total Marks: 100

28/04/12

[TURN OVER

N.B. (1) Answer all sections in the same answer book.

(2) Figures on the right indicate full marks.

Section I

N.B. (1) All questions are compulsory.

(2) Select the most appropriate answer from the alternatives provided for each of the following and write ONLY the correct option in your answer-book.

1) Extraction efficiency of a so					
a)Stability of solute	b)Partition coefficient	c)pH of solvent	d)partial pressure		
2)The route of administration			1100		
a)IV	b)Oral	c)IM	d)SC		
3)First pass effect refers to- a)Liver metabolism					
	b)Gastric absorption	c)Enteric absorption	d)None of these		
4)GCP guidelines for India ar	e issued by-				
a)DCGI	b)FDA	c)ICMR	d)Govt.Of India		
5)Powder characteristics of c		a allerhal analysis di	lone of those		
a)Pharmacognostic evalu	uation b)Proximate analysis	s c)Herbal analysis d)I	volle of these		
6)Electronic signature is desc		c)FDA guidelines	d) None of these		
a)CFR 21 part 11	b)CFR 21 part 12	C)FDA guidelines	d) None of these		
7)Sub family papilionaceae b	elongs to family- b)Leguminosae	c)Rosaceae	d)Malvaceae		
a)Asteraceae	b)Leguiiiilosae	C)NOSACEAE	u)iviaivaceae		
8)Trichomes are found on-	b)roots	c)seeds	d)None of these		
a)leaves	ACI elenia II		d/None of these		
9)Extraction technique that re a)liquid liquid extraction		es is- c)SPE	d)Soxhlet extraction		
	initia dentino	0,01 L	d)COMMET CATACOTO		
10)Arka Vati is a type of form	eulation in – b)Unani	c)Siddha	d)Homeopathy		
a)Ayurveda	b)Onam	C/Olddria	u) i ioi ii copatily		
11)Visualisation of bands after a)Exposure to Safranine	er derivatizing a TLC plate	can be done using- b)Exposure to Nitrogen	î		
c)Exposure to Sarranne	stals	b)Exposure to retrogen	d)none of these		
12)Scanning of a TLC plate i	s hased on the principle of				
a)Densitometry	b)Lambert's law	c)Refractometry	d)Sonometry		
13) Separation of solutes of	similar nature by I C can be	achieved by-			
a)Isocratic HPLC	b)Gradient HPLC	c) GLC	d)LC-MS		
14)Proteins are best separat	ed in HPI C using-				
a)C18 column	b)C9 column	c)Affinity column	d)Ion exchange column		
15)Enantiomers are separated in HPLC using-					
a)chiral columns		c)affinity column	d) none of these		

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Bic-Hours Hours

10)	a)ELSD	b)UV detector	IS- liut et	c)PDA detector	d)ECD
17)	Active proteins are derive a)Protein folding b)D	rd from their pred eamination c)	cursors by- Post transa	lational modifications	d) none of these
18)	The most characterstic fe a)Specificity	ature of enzyme b)non reactivity	as a cataly	vst is its- c)stability	d)none of these
19)	Electrophoretic separation a)lonic charge	n is based on- b)pH		c)temperature	d)voltage
20)	A technique that uses ant a)Electrophoresis	ibodies for detection b)Isotachopho		c)ELISA	d)none of these
21)	The most influential interra)TRIPS	national treaty that b)CITIES	at has char	ged IPR policies is- c)WTO	d)Agenda 21
	Stability studies helps us a)Shelf life The following type of form a)Immediate release	b)Bioavailabilit	st influence	c)API degradation ed by food in the stomac c)Injection	d)none of these h- d)Ointment
24)	DOLLY' was a- a) Transgenic Sheep c) Cloned Human embryo	ers c)Herbal ar		b) Cloned sheep d) none of these	
25)	The technique of 'Test Tua') Artificial Insemination c) Surrogate Mother	ube Baby' can be	e described	as - b) In Vitro Fertilisation d) Cloning	
26)	Each chromosome conta a) Double DNA molecule c) Diploid number of DNA			b) Single DNA molecule d) Haploid number of D	e NA molecules
27)	Albumins & globins can ba) HNO ₃	pe precipitated in b) Ammonium	fractions fr Sulphate	rom their solutions using c) CuSO ₄	d) Sodium Tungstate
28)	Lipoproteins can be class a) Conjugated proteins	sified as - b) Derived pro	teins	c) Simple proteins	d) none of these
29)	Electrophoresis involves a) Voltage gradient			ix under- t c) pH gradient	d) none of these
30)	Major protein found in mi	lk is- b) Lactose		c) albumin	d) Collagen
31)	A nucleoside consists of- a) Base + sugar	b) base + phos	sphate	c) Phosphate + Sugar	d) none of these
32)	RNA involved in translational t-RNA	on during protein b) r-RNA	synthesis	is - c) m-RNA	d) none of these
33)	Enzyme involved in DNA a) DNA polymerase	replication is- b) DNA ligase		c) Transferase	d) RNA polymerase

34) A single DNA strand begins with the sequence ATGGACGTATTC , the complimentary DNA strand will be-					
a) GCTATCCAGGAT b) TACCTGCATAAG c) CTTATGCAGGTA d) ATGGACGTATTC					
35) A colorimeter is designed to work- a) only in the uV region b) only in the visible region c) both in the visible and the uV region d) in none of the above regions					
Deviations from the Beer-Lambert's law are observed mainly due to- a) failure of Beer's law b) failure of Lambert's law c) failure of both Beer's and Lambert's law d) the instrument used					
 37) A buffer solution can be prepared from- a) a weak acid and its salt with a strong base b) a weak base and its salt with a strong acid c) a salt of a weak acid and a weak base d) all of the above 					
38) Enantiomers are- a) geometric isomers b) position isomers c) structural isomers d) positional isomers					
39) Primary and secondary amines can be distinguished by means of their reaction with- a) nitric acid b) nitrous acid c) halogen acid d) halogens					
40) Chair form and boat form of cyclohexane are examples of- a) confirmational analysis b) position isomerism c) structural isomerism d) enantiomers					
SECTION II Attempt ANY THREE of the following;					
Q1. What does the term analytical method validation mean? Explain different parameters used? Q2. Explain the significance of WTO in the promulgation of amendments in Indian Patent Law. Q3. Differentiate between Nephalometry and Turbidometry? Q4. Describe various factors that influence bioavailability of a drug. Q5. Write an explanatory note on Ayurvedic Pharmacopeia of India					
CECTION III					
Attempt ANY TWO of the following; 3					
 Q1. Describe the process of standardising a medicinal plant for the herbal drug industry. Q2. Describe the principles of Tandem mass spectrometry and its applications in bioanalysis. Q3. What is autoradiography? What are the principles involved in Autoradiography? Q4. What are the various thermal methods of analysis and what are the basic properties that are measured in them? 					