1.		-	the syr	nthesis of outer membrane proteins of
	_	negative bacteria		
	A)	Dystrophin	B)	Attacins
	C)	Phytoanticipins	D)	Fungistatic
2.	Which	n alga is known as sea lettuce?		
	A)	Fucus	B)	Caulerpa
	C)	Ulva	D)	Padina
3.	The po	eat moss belongs to the order		
	A) ¹	Sphagnales	B)	Andreaeales
	C)	Bryales	D)	Anthocerotales
4.	Pyren	olichens fall under		
	A)	Discolichens	B)	Ascolichens
	C)	Basidiolichens	D)	Deuterolichens
5.	The m	nost advanced parallel-banded	stele in	the Pterdonhyta
<i>J</i> .	A)	Haplostele	B)	Plectostele
	C)	Actinostele	D)	Mixed protostele
6.	Which	n among the following is a tree	e fern?	
0.	A)	Pteris	B)	Cyathea
	C)	Adiantum	D)	Dryopteris
7.	Doctin	ng spores are called		
7.	A)	Siderophore	B)	Statognara
	-	Planospore		Statospore Phiolograps
	C)	Pianospore	D)	Phialospore
8.		tons smaller than 20µm but lar	_	·
	A)	Nanoplanktons	B)	Picoplanktons
	C)	Periphyton	D)	Macroplankton
9.	The go	enus Rhizopus belongs to the f	amily	
	A)	Mucoraceae	B)	Saccharomycetaceae
	C)	Pilobolaceae	D)	Rhodomycetaceae
10.	Aman	ita toxins are		
	A)	Ergotoxins	B)	Aflatoxins
	C)	Mushroom toxins	D)	Esterogonic toxins
11.	A sub	stance that increases the poten	cy of ar	n immunogen
	A)	Axoneme	B)	Adjuvant
	C)	Aptamer	D)	Agameon

12.	Small non-antigenic molecules in an immunogen								
	A)	Zymogens	B)	Haptens					
	C)	Co-factors	D)	Aptamer					
13.	Bacte	erial cells that lack chromosom	es are	called					
	A)	Microcells	B)	Minicells					
	C)	Maxicells	D)	Midicells					
14.	Мус	otoxin produced by Aspergillus	s flavus						
	A)	Phytoalexin	B)	Amphylotoxin					
	C)	Aflatoxin	D)	Dystrophin					
15.	'Boll	rot' of cotton is caused by							
	A)	Agaricus	B)	Penicillium					
	C)	Puccinia	D)	Rhizopus					
16.	Рисс	inia graminis tritici occurring	on the	wheat crop is also named as					
	A)	Orange rust	B)	Black rust					
	C)	Yellow rust	D)	Green rust					
17.	Blast disease of rice is caused by								
	A)	Piricularia oryzae	B)	Pseudomonas oryzae					
	C)	Scleroticum oryzae	D)	Helminthosporium oryzae					
18.	The antibiotic streptomycin was isolated from								
	A)	Streptomyces griseus	B)	Streptomyces venezuele					
	C)	Streptomyces aureofaciens	D)	Streptomyces rimosus					
19.	The 'tumour inducing' plasmids are present in								
	A)	Agrobacterium rhizogenes	B)	Agrobacterium tumifaciens					
	C)	Acetobacter aceti	D)	Azotobacter sp.					
20.	The infectious agent of 'scrapie' is								
	A)	Parvovirus	B)	Reovirus					
	C)	Prion	D)	Retrovirus					
21.	A de	ad area in the bark or cortex of	the ste	em especially of woody plants is called					
	A)	Spot	B)	Canker					
	C)	Scorch	D)	Die-back					
22.	Rato	on stunting disease of sugarcar	ne is						
	A)	Insect transmitted	B)	Soil transmitted					
	C)	Sap transmitted	D)	Root transmitted					

2:	3.	Red ro A) C)	ot of Sugarcane Piricularia or Xanthomaona	yzae		B) D)		totrichum falca phthora infesta		
24				ons, sp€ my			ionary 1 Beta t	ogical aspects of rates and trends axonomy taxonomy		, including
2:		 The term 'Unitegmic' refers to A) An ovule having a single integument B) A filament with a single anther C) A fruit with a single seed D) A style with a single stigma 								
20			um in Orchida h 180 ⁰ . This pr Adnation Resupination			B) D)	Articu	e by the twist ulation uation	ing of	the ovary
2'	7.	The CAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	ommelinaceae : Spiderwort fa: Grass family		is comm	nonly kr B) D)		family		
28	8.	Foenia A) C)	culum vulgare t Rutaceae Apiaceae	oelongs	to the f	amily B) D)	Melia Brassi	ceae icaceae		
29			two or more a are linked usin In			a new	specie C)	s or propose a	new i	name, their
30	0.	Binon A)	nials with identi Homonym	ical gen B)	us name Tautor	_	ecific e	epithet are calle Basionym	d D)	Synonym
3	1.		ument containi Illy a genus or f Manual			ensive a	account C)	of a specific of Monograph	axono D)	mic group, Revision
3.			of classification	on? s are pla s are pla are plac	aced bet aced am ced befo	ween Mong Die	Ionoco cotyled locotyle	edons		

33.	The j	The principles of Numerical taxonomy were developed by								
	A)	Bentham and Hooker	B)	Engler and Prantl						
	C)	Sneath and Sokal	D)	Takhtajan and Cronquist						
34.	The	botanical name for 'All spice	e' is							
	A)	Pimenta dioica	B)	Amaranthus cruentus						
	C)	Aloe vera	D)	Brassica campestris						
35.	Wha	t is the botanical name of 'Ju	ıte'?							
	A)	Dalbergia sissoo	B)	Lagerstroemia speciosa						
	C)	Cedrus deodara	D)	Corchorus capsularis						
36.	The	rubber obtained from Maniho	ot glaziov	<i>ii</i> is called						
	A)	Para rubber	B)	Panama rubber						
	C)	Ceara rubber	D)	India rubber						
37.	Endo	osperm formation is suppress	ed in							
	A)	Orchidaceae	B)	Compositae						
	C)	Aristolochiaceae	D)	Boraginaceae						
38.	The	The major alkaloid in Hemlock, which was used for the execution of Socrates, is								
	A)	Sinigrin	B)	Strychnin						
	C)	Coniine	D)	Quinine						
39.		The term 'ethnobotany' was introduced by								
	A)	Powers	B)	Harshberger						
	C)	Gilmour	D)	Martin						
40.		Ethnobotanical records are stored indatabase								
	A)	PLANIMAL	B)	SEPASAL						
	C)	NAPRALERT	D)	EMBL						
41.	inco	The total botanical knowledge held by any non-industrial community and which incorporates all utilitarian, ecological and cognitive aspects of both plant use and westering management is called								
		vegetation management is called								
		A) ITK, Indigenous Technical Knowledge								
	-	B) IAK, Indigenous Agricultural Knowledge								
		C) TBK, Traditional Botanical Knowledge								
	D)	TEK, Traditional Ecologic	cai Know	leage						
42.		_		dited with the invention of the electron or the same?						
		oscope and awarded the Nob								
	A)	J.J. Thompson Otto van Borris	B)	Louise de Broglie Ernst Ruska						
	C)	Ono van Donis	D)	Linst Kuska						

43.	-	are thin sections of specoscope?	imens	necessary in	n Transmission	Electron				
	A)	Electrons are negatively char	rged							
	B)	Electrons have a wave nature								
	C)	Electrons have no mass								
	D)	Electrons have a poor penetr	ating p	ower						
44.	A line	ear monomer of D-galactose ar	nd 3,6 a	nhydro-L-gala	actopyranose is c	alled				
	A)	Dextran	B)	Agarose						
	C)	Acrylamide	D)	Silica						
45.		natography that involves the se	-	on of isomers						
	A)	Counter current chromatogra	aphy							
	B)	Chiral chromatography								
	C)	Paper chromatography								
	D)	Thin layer chromatography								
46.	The total volume of material, both solid and liquid in the column is known as									
	A)	Void volume	B)							
	C)	Elution volume	D)	Retension v	olume					
47.		gel-G is used in								
	A)	Thin layer chromatography			omatography					
	C)	HPLC	D)	GLC						
48.		Labyrinthine cell wall enveloped by plasma membrane is characteristic of								
	A)	Sieve tubes	B)	Lenticels						
	C)	Transfer cells	D)	Guard cells						
49.	Ridged and furrowed xylem cylinder with phloem wedges is characteristic of secondary growth in the stem of									
	A)	Bignonia	B)	Serjania						
	C)	Dracaena	D)	Boerhaavia						
50.	Nano	meter is $1/1000^{th}$ of a								
	A)	Millimeter	B)	Centimeter						
	C)	Micrometer	D)	Picometer						
51.		lly cutinized leaves that show me drought	resista	ance to dessic	cation under con	ditions of				
	A)	Microsporophylls	B)	Megasporop	hylls					
	C)	Sclerophylls	D)	Podophylls						

52.		is an azodye								
	A)	Safranin	B)	Haematoxylin						
	C)	Aniline blue	D)	Orange G						
53.	Carn	oy's solution is a mixture of								
	A)	-	ieous a	cetic acid and distilled water						
	B)	Ethyl alcohol, Glacial acetic								
	Ć)	Ethanol, Glacial acetic acid								
	D)	Aqueous alcohol, Aqueous								
54.	Inact	Inactive precursors of certain proteolytic enzymes								
	A)	Abzymes	B)	Allozymes						
	C)	Isozymes	D)	Zymogens						
55.	Vinc	ristine and vinblastine are								
	A)	Phenolics	B)	Terpenoids						
	C)	Alkaloids	D)	Saponins						
56.	In aq	ueous solution glucose exists	as a							
	A)	Furanose	B)	Pyranose						
	C)	Pentose	D)	None of the above						
57.	interi	In a normal metabolic pathway substance Z is produced from X through the intermediate Y and involvement of two enzymes, A and B respectively. If both enzymes are functional, what would be the most possible consequence?								
	A)	Substance Z accumulates	B)	Substance X accumulates						
	C)	Enzyme A accumulates	D)	Enzyme B accumulates						
58.	A group of red or yellow compounds found only in the plants of order									
	-	ophyllales	ъ.	37 d 1 11						
	A)	Anthocyanins	B)	Xanthophylls						
	C)	Betacyanins	D)	Betalains						
59.	Amino acid which accumulates as a result of stress									
	A)	Proline	B)	Cysteine						
	C)	Methionine	D)	Histidine						
60.	The b		ospheno	ol pyruvic acid to tyrosine is commonly						
	A)	Hatch and Slack pathway	B)	Glycolate pathway						
	C)	Shikimic acid pathway	D)	EMP pathway						
61.	A pla	ant capable of utilizing saline g	ground	water						
	A)	Hylophyte	B)	Hylodad						
	C)	Halophreatophyte	D)	Hemerophyte.						

62.	Organelles involved in photorespiration are A) Mitochondria, chloroplasts and ribosomes B) Mitochondria, chloroplasts and peroxisomes C) Mitochondria, nucleus and ribosomes D) Mitochondria, peroxisomes and glyoxisomes						
63.	A sys A)	tem of growing plants with Hydroponics	n their roots B)	supplied Aeropo		ıre in the	air
	C)	Bionomics	D)	Geonor			
64.	Defic	iency of which of these lea	ads to interv	einal chl	orosis		
04.	A)	Magnesium	B)	Calciun			
	C)	Cobalt	D)	Nitroge			
	C)	Cooun	D)	Titloge	11		
65.	Little	leaf disease is due to the d	leficiency o	f			
	A)	Nitrogen	B)	Sodium	l		
	C)	Zinc	D)	Mangar	nese		
66.	Dhyto	chrome is achromop	rotain				
00.	-	Red/Orange		Dlug/V	allow groon		
	A)	Purple/Black	B)	Brown/	ellow-green		
	C)	Pulpie/black	D)	DIOWII/	Tellow		
67.	Small	particles present on the in	ner mitocho	ondrial m	embrane are	called	
	A)	Ergosomes	B)	Peroxis			
	C)	Elementary particles	D)	Core pa	rticles		
68.	soils t	ch of soil science which of for land use-planning		·		nd classi	fication of
	A)	Serology	B)	Rheolog			
	C)	Pedology	D)	Kymato	ology		
69.	Forests that occur in eastern and western Himalayas and in the Nilgiri hills at an altitude of 1,600 – 3,500m are A) Tropical evergreen or rain forests B) Temperate evergreen or Coniferous forests C) Tropical deciduous or monsoon forests D) Tropical Thorn forests						
70.		terspecific interaction in skins produced by the other				inhibited	d typically
	A)	Amensalism B) M	lutualism	C)	Altruism	D)	Tropism
71.	The n	hysical space occupied by	an organisi	n in an ea	o system is	called	
, 1.	A)	Niche	B)	Sere	o system is	Carroa	
	C)	Deme	D)	Cline			
	\sim)	Dellie	$\boldsymbol{\nu}_{j}$	CITIC			

72.	The study of an organism in relation to its environment							
	A)	Autecology	B)	Palynology				
	C)	Pedology	D)	Gerantology				
73.	One of	the following steps is not invo	olved ir	n cryopreservation				
	A)	Air-drying	B)	Slow freezing				
	C)	Encapsulation	Ď)	Shadow casting				
74.	Which	of the following biomes has t	he high	est biodiversity?				
	A)	Savannas	B)	Tundra				
	C)	Tropical rain forest	D)	Temperate grasslands				
75.	'Harm	ful Algal bloom' is the result of	of accur	nulation of species of				
	A)	Lemna	B)	Pistia				
	C)	Alexandrium	D)	Volvox				
76.	Pick or	ut the mangrove plant from the	e follow	ring list				
	A)	Solanum surattense	B)	Excoecaria agallocha				
	C)	Saccharam spontaneum	D)	Euphorbia tirucalli				
77.	Ozone	(O ₃) is formed mainly in which	ch layer	of the atmosphere				
	A)	Troposhere	B)	Ozone layer				
	C)	Stratosphere	D)	Ionosphere				
78.	The 'n	nutation theory' of organic evo	olution v	was put forward by				
	A)	Hugo deVries	B)	Weismann				
	C)	Darwin	D)	Lamarck				
79.	Changing climate may isolate populations on mountain peaks or in remnant lakes or islands. This is called speciation							
	A)	Allopatric	B)	Sympatric				
	C)	Parapatric	D)	None of the above				
80.	The term 'muton' was coined by							
	A)	Barbara McClintock	B)	Muller				
	C)	Seymour Benzer	D)	Jacob and Monad				
81.	The ge	enetic codes for ochre, amber a	and opa	<i>l</i> are, and respectively				
	A)	UGA, UAG, UAA	B)	UAG, UAA, UGA				
	C)	UAG, UGA, UAA	D)	UAA, UAG, UGA				
82.	Intron	sequences in DNA always be	gin and	end with				
	A)	AG, GT	B)	GT, AG				
	C)	TG, GA	D)	GA, TG				

83.	Any one of a group of restriction sequences	i enzym	les that recognizes the same nucleotide
	A) Isozyme	B)	Ribozyme
	C) Isoschizomer	D)	Isomer
		ŕ	
84.		_	protein is determined using the technique
	A) DNA replication	B)	DNA fingerprinting
	C) DNA footprinting	D)	DNA priming
85.	agitated liquid medium		cells or small clumps are grown in an
	A) Slop culture	B)	Suspension culture
	C) Retroculture	D)	Sericulture
86.	phenylthiocarbamide and the rema	inder ca to taste on the ge B)	TT-0.25, $Tt-0.5$, $tt-0.25$
87.	(A. sativa) appears to be a hexag number:	oloid in	28 chromosomes. The cultivated oats the same series with the chromosome 84
	A) 168 C) 42	B) D)	56
	C) 42	D)	30
88.	represents centromere). The chrosequence ABCFE o DGH is	mosoma	sequence ABCD o EFGH (Small 'o' al mutation represented by the gene
	A) Pericentric inversion	B)	Paracentric inversion
	C) Reciprocal translocation	D)	Non-reciprocal translocation
89.	Philadelphia chromosome seen in a translocation between chromosome A) 9 and 22 C) 2 and 13	-	2 and 9 9 and 13
00	Distance and the control of the	1:	
90.	associated with this disorder		ate the severe mental retardation that is
	A) Phenylketonuria	B)	Familial hypercholesterolemia
	C) Tay-Sachs disease	D)	Haemophilia
91.	The genetic abnormality produced	by XXY	Condition in humans is
	A) Down's syndrome	B)	Kline felter's syndrome
	C) Turner's syndrome	D)	Lesch-Nyhan disease

92.	A) C)	xy gene is located on the X-chromosome Autosome	B) D)	Y-chromosome Nucleosome
	C)	Autosome	D)	Nucleosome
93.		ma is a greek word meaning		
	A)	Cross	B)	Ring
	C)	Chain	D)	Straight line
94.	doubl			ar and pollen length were studied. The ance of the parental combinations. This
	A)	Independant assortment	B)	Linkage
	C)	Crossing over	D)	Incomplete Dominance
95.	RNA	polymerase binds to genes at	the	
	A)	Operator	B)	Enhancer
	C)	Promoter	D)	Inducer
96.	The e A) B) C) D)	nzyme reverse transcriptase i RNA directed DNA polymo RNA directed RNA polymo DNA directed DNA polymo DNA directed RNA polymo	erase erase erase	
97.	Duffe	or balbiani rings in salivary g	aland ah	romosomos ara sitas of
91.	A)	DNA replication	B)	RNA synthesis
	C)	DNA duplication	D)	Protein synthesis
98.	Chron	nosome theory of inheritance	was nr	onosed by
70.	A)	Watson and Crick	B)	Jacob and Monad
	C)	Beadle and Tatum	D)	Sutton and Boveri
99.	Deno	sition of material between the	e microfi	ibrils of the cell wall is called
,,,	A)	Intersusception	B)	Intussusception
	C)	Interference	D)	Integration
100.	The fan A)	irst man-made cereal 'Tritical Wheat and Oat Maize and Rice	le' has b B) D)	een developed from a cross between Wheat and Maize Wheat and Rye
101.	Whic	h is the hexaploid species of	Wheat?	
	A)	Triticum monococcum	B)	Triticum durum
	C)	Triticum aestivum	D)	Triticum turgidum
102.	A 'tri	somic' individual has		
	A)	An extra chromosome	B)	One less chromosome
	C)	Two extra chromosomes	D)	One pair of extra chromosome

103.	Kapp	a particles are present in						
	A)	Plastids	B)	Plasmids				
	C)	Mitochondria	D)	Cytoplasm				
104.	Phage	e ØX-174 has						
	A)	Double stranded DNA	B)	Double stranded RNA				
	C)	Single stranded RNA	D)	Single stranded DNA				
105.	The f	irst codon discovered by Nire	enberg N	Aathaei was				
	A)	GGG	B)	CCC				
	C)	UUU	D)	AAA				
106.	Khor	ana first deciphered the triple	t codon	of				
	A)	Serine and isoleucine	B)	Cysteine and valine				
	C)	Tyrosine and tryptohan	D)	Phenylalanine and methionine				
107.	RNA	polymerase III makes						
	A)	rRNA	B)	hnRNA				
	C)	tRNA, 5SrRNA	D)	sn RNA				
108.	The h	neadquarters of the National F	Horticult	ure Board is situated at				
	A)	New Delhi	B)	Thiruvananthapuram				
	C)	Gurgaon	D)	Bhopal				
109.	An e	volutionary event in which a	significa	ant percentage of a population or species				
	is kill	led or otherwise prevented from	om repro					
	A)	Bottle-neck	B)	Genetic load				
	C)	Founder effect	D)	Segregational load				
110.	The equilibrium attained between the electric potential and concentration gradient in a closed system with two compartments separated by a semi-permeable membrane							
	A)	Hardy-Weinberg equilibriu	ım					
	B)	Donnan equilibrium						
	C)	Maxwell-Boltzmann equili	brium					
	D)	Michaelis-Menten equilibri	ium					
111.	Dispe	ersion force or London force i	is a type	of force				
	A)	Van der Waals	B)	Hydrophobic-hydrophilic				
	C)	Ionic	D)	Covalent				
112.	The p	particle associated with biolur	ninescei	nce				
	A)	Photon	B)	Electron				
	C)	Scintillon	D)	Phytotron				

113.	The average fleece weight in a large band of sheep together with its standard deviation was calculated to be 10.3±1.5lb. The statistics for fleece grade was 5.1±0.7. Which trait is relatively more variable?									
	A)	Fleece weight	B)	Fleece grade						
	C)	Both traits	D)	None of the traits						
114.	A co	A common digital sound file existing in personal computers is known as								
	A)	JPEG file	B)	ZIP file						
	C)	WAV file	D)	BMP file						
115.		anslator that converts a prog	ramme w	ritten in assembly level language into a						
	A)	Compiler	B)	Assembler						
	C)	Algorithm	D)	Interpreter						
116.	The largest order among the Gymnosperms									
	A)	Cycadales	B)	Coniferales						
	C)	Ginkgoales	D)	Gnetales						
117.	In eu	In eukaryotes ATP-Synthase enzyme involved in respiration is in the								
	A)	Cytoplasam	B)	Mitochondrial matrix						
	C)	Oxysomes	D)	Quantasomes						
118.	One of the following sterols is less prevalent in plants									
	A)	Campesterol	B)	Sitosterol						
	C)	Stigmasterol	D)	Cholesterol						
119.	Oxid	Oxidative phosphorylation is a process that								
	A)	Occurs during respiration								
	B)	Occurs during photosynth	esis							
	C)	•								
	D)	Involves PS I and PS II								
120.	BLA	ST programme is used in								
	A)	DNA sequencing	B)	Amino acid sequencing						
	C)	DNA bar coding	Ď)	Bioinformatics						
