1.	Central nervous system is originated from									
	A)	Ectoderm	B)	Endoderm						
	C)	Mesoderm	D)	None of these						
2.	Bilate	ral cleavage pattern is found i	n							
	i.	Vertebrates	ii.	Tunicates						
	iii.	Amphioxus	iv.	Echinoderms						
	A)	i & ii	B)	ii & iii						
	C)	i & iv	D)	ii & iv						
3.		In Sea urchin, acrosomal reaction is artificially induced by								
	A)									
	B)	Decreasing the concentration								
		C) Increasing the concentration of Ca in seawater								
	D)	Decreasing the concentration	n of Ca	ın seawater						
4.	Herpes Virus (HHV-8) is associated with A) Divergence Power Property of the P									
	A)		B)	Burkitt's lymphoma						
	C)	Kaposis sarcoma	D)	None of these						
5.	Best anticancer strategy for the early detection of prostate cancer									
	A)	Mammography	B)	Pap smear						
	C)	PSA determination	D)	Colonoscopy						
6.	The diffusion ratio of membrane proteins is measured by using									
	A)	FRAP	B)	CRAP						
	C)	RAP	D)	SNAP						
7.	Cystic fibrosis is an inherited disease caused by the defect in which of the									
	follow	ing ion channel								
	A)	Na + channel	B)	C- channel						
	C)	K+ channel	D)	C+ channel						
8.	Disease associated with G protein coupled receptors									
	A)	Hyperthyroidism								
	B)	X linked nephrogenic diabet	es incip	oidus						
	C)	Retinitis pigmentosa								
	D)	All the above								
9.	Naupl	ius is the larval form of								
	A) 1	Mollusca	B)	Echinidermata						
	C)	Crustacean	D)	Annelids						

10. The region of DNA with inverted repeats of base sequence having two fold						
-	2	B)	Palindrome sequence			
	0 1 0		None of these			
C)	Tron pulliaronic sequence	D)	Trone of these			
Left h	anded DNA					
A)	H DNA	B)	B DNA			
C)	A DNA	D)	Z DNA			
_						
		/	William Raux			
C)	Spemann	D)	Wolf			
specie	s by causing changes in the ph	ysical s	•			
C)	, i	D)	Critical link species			
,	S	,	1			
Shallo	w pool of water exposed to su	nlight i	S			
A)	Solar pond	B)	Normal pond			
C)	Extreme pond	D)	Cyclic pond			
	Eohippus, Merychippus, Mes Eohippus, Merychippus, Phic Eohippus, Mesohippus, Mer	sohippu ohippus ychippi	s, Phiohippus, Equus Mesohippus, , Equus us, Phiohippus, Equus			
Which	n of the following is an example	e of po	lymorphism in human population			
i.	Sickle cell gene in human	ii.				
iii.	ABO Blood group in human	iv.	Melanism in human			
		_\				
		/	ii & iv			
C)	1 & 111	D)	iii & iv			
Darwi	n finches in Galanagos island	is an ex	ample of			
			Ecological Guild			
	<u> </u>		None of the above			
C)	Leological dominance	D)	Trone of the doore			
			ow wings while those in warmer areas			
A)	Allan's rule	B)	Rench rule			
C)	Bermen's rule	Ď)	Gloger's rule			
	symm A) C) Left h A) C) Organ A) C) Organ specie A) C) Shallo A) C) Which horse? A) B) C) D) Which i. iii. A) C) Under the second of the secon	symmetry over two strands of DNA A) Hoogsteon pairing C) Non-palindrome sequence Left handed DNA A) H DNA C) A DNA Organizer theory was proposed by A) Child C) Spemann Organisms that directly or indirectly species by causing changes in the pha A) Keystone species C) Parasitic organisms Shallow pool of water exposed to sua A) Solar pond C) Extreme pond Which of the following is the correlatorse? A) Eohippus, Merychippus, Mes B) Eohippus, Merychippus, Mes C) Eohippus, Mesohippus, Mer D) Eohippus, Phiohippus Mesoh Which of the following is an exampliant iii. Sickle cell gene in humaniii. ABO Blood group in humaniii. ABO Blood group in humaniii. ABO Blood group in humaniii. C) i & iii Darwin finches in Galapagos island A) Ecological equivalence C) Ecological dominance "The birds in colder regions will hawill have broader wings" is stated to A) Allan's rule	symmetry over two strands of DNA A) Hoogsteon pairing B) C) Non-palindrome sequence D) Left handed DNA A) H DNA B) C) A DNA D) Organizer theory was proposed by A) Child B) C) Spemann D) Organisms that directly or indirectly controspecies by causing changes in the physical stance and sequence B) C) Parasitic organisms D) Shallow pool of water exposed to sunlight it A) Solar pond B) C) Extreme pond D) Which of the following is the correct sequence by Eohippus, Merychippus, Mesohippus B) Eohippus, Merychippus, Phiohippus C) Eohippus, Mesohippus, Mesohippus, Mesohippus, Phiohippus B) C) Eohippus, Mesohippus Mesohippus, Which of the following is an example of poi. Sickle cell gene in human ii. iii. ABO Blood group in human iv. A) i & ii B) C) i & iii B) Darwin finches in Galapagos island is an example of poir. Sickle cell gene in human iv. A) Ecological equivalence B) C) Ecological dominance D) "The birds in colder regions will have narr will have broader wings" is stated by A) Allan's rule B)			

19.		ming of season ions is called	al activ	vities of	plants	in relat	ion to change	in enviro	onmental
	A)	Phenology			B)	Palyno	ology		
	C)	Penology			D)	Pleon	ology		
20.		on reducing suggested as an energy:	_	•		ent of t	the circulating	fluid o	f insects,
	A)	Sucrose	υ	1	B)	Treha	lose		
	C)	Both A and B			D)	None	of these		
21.		w was initiato enting an amino Alanine			as a me		-		and each Proline
	,		,			- /	<i>y</i>	,	
22.		alf life period of 3.5 days is	of a rac	dioactive	e isotop	e is 4.5	days. The fra	ction le	ft behind
	A)	1/2	B)	1/4		C)	1/6	D)	1/8
23.	Amon	g the human cr	anial ne	erves, w	hich an	nong the	e following are	purely s	sensory?
	A)	I, II, VIII			B)	I, III,			
	C)	I, VII, XI			D)	I, IV,	VIII		
24.	Which	of the following	_						rker?
	A)	Helper T Lym				_	atory T lympho	ocytes	
	C)	Cytotoxic T ly	ymphoc	eytes	D)	Both A	4 & C		
25.	The fi	rst antibodies so	ecreted	by B-C		_	stimulation by	antigen	is
	A)	Ig D			B)	Ig M			
	C)	Ig E			D)	Ig A			
26.	Cardio	vascular contro		er in the	nervou	-			
	A)	Hypothalamu	S		B)		lla oblongata		
	C)	Cerebrum			D)	Cereb	ellum		
27.	In noc	cturnal animals	, pigme	ented lag	yer in o	choroid	is replaced by	reflect	ing layer
	A)	Pigmentosa			B)	Pector			
	C)	Toroid			D)	Tapet	um		
28.	Which	among the fol	lowing	is an ora	al antic	oagulan	at?		
	A)	Heparin			B)	Warfa			
	C)	EDTA			D)	Dicun	narol		
29.	Ornith	ine cycle is ass	ociated	with K	reb cyc	le throu	gh		
	A)	Fumaric acid			B)	Malic			
	C)	Succinic acid			D)	Oxalo	succinic acid		

30.	4D S A)	yndrome is associated Riboflavin B)	d with the Biotin		ency of C)	Tocophero	ol D)	Niacin		
31.	Worl	d Animal Day is on								
	A)	October 3		B)	Augu	st 29				
	C)	September 16		D)	_	mber 2				
32.	Exan	nple of an allosteric in	hibitor							
	A)	Malonite		B)	Cyan	ide				
	C)	Glucose-6-phospha	ite	D)	None	of these				
33.	Hola	ndric genes are presen	nt in							
	A)	Autosomes		B)		romosomes				
	C)	Y Chromosomes		D)	X and	d Y Chromos	somes			
34.		rosis is								
	A)			B)	-	id sterility				
	C)	Hybrid incompatib	ility	D)	Struc	trural hybrid	ity			
35.		ek Water Disease' is c	aused by		-	-	um?			
	A)	P. vivax		B)	P. ove					
	C)	P. falciparum		D)	P. ma	ılariae				
36.	-	ohenotypic ratio in sup		ary ger						
	A)	9:7 B)	9:3:4		C)	9:6:1	D)	13:3		
37.		n's syndrome is an ex	ample of							
	A)	Aneuploidy		B)	Polyt	-				
	C)	Polyploidy		D)	Mono	ploidy				
38.		If a marriage is made between a universal donor mother and a universal recipient father, what will be the possible % of blood group of children?								
		100% O								
	C)	50 % A and 50% B		D)	100%					
	,			,						
39.		s sectional image of cal technique	internal	body s	tructure	can be obtain	ained by	using this		
	A)	EEG B)	PET		C)	CAT	D)	NMR		
40.	Crvp	t of Liberkuhn is an e	xample f	or						
	A)	Simple tubular glar	-	B)	Com	ound tubula	r gland			
	C)	Coiled tubular glan		D)		le alveolar g	_			
41.	Live	and pancreas are der	ived fron	n						
	A)	Embryonic foregut		B)	Embr	yonic midgu	t			
	C)	Embryonic hindgut		Ď)		yonic mesod				

42.	A) B) C) D)	Abnormal protein metabolism Abnormal carbohydrate metabolism Vitamin deficiency	m	n					
43.	Eunu	choidism is due to the lack of							
	A)	Secretin	B)	GH					
	C)	Pancreozymine	D)	Sex corticoid hormone					
44.	Food A) B) C) D)	can be preserved at freezing to Making the enzymes of micr Making the enzymes inactive Causing modulation to enzymes Both A and B	obes in	•					
45.	Sulph	na drugs generally act as							
	A) ¹	Competitive inhibitors	B)	Non competitive inhibitors					
	C)	Allosteric inhibitors	D)	Modulators					
46.		ees the surface area for the ex-		ngs are enlarged and damaged, which of respiratory gases. This condition is					
	A)	Asthma	B)	Emphysema					
	C)	Anosmia	D)	Bronchitis					
47.	In wh	In which of these would you find white fibrous tissue in abundance?							
.,.	A)	Cartilage	B)	Ligament					
	C)	Bone	D)	Tendon					
48.	Radio	Radioisotope used in PET scanning?							
	A)	P ³²	B)	C^{11}					
	C)	Ca ⁴⁵	D)	I^{131}					
49.	The f	oetus developing in the uterus	of the	mother is considered as					
.,.	A)	Heterograft	B)	Allograft					
	C)	Autograft	D)	Xenograft					
50.	When	n a lost limb of a Newt is regen	erated.	it is					
	A)	Epimorphosis	B)	Morphollaxis					
	C)	Allometric growth	D)	None of these					
51.	Cerel	prospinal fluid flows from later	al vent	ricle into the third ventricle through					
	A)	Foramen magnum	B)	Foramen monro					
	C)	Foramen panizza	D)	Foramen ovale					

52.		The urine will the urine will be There will be formed	pected' l be mo l be mo no uri	? ore dilutore conc ne forma	e entrated ation	d	•		
53.	Hassa	ll's corpuscles	are fou	ınd in					
	A)	Pineal gland			B)	Kidne	•		
	C)	Liver			D)	Thym	us gland		
54.	Chord	lates first came	in whi	ch of the	e follow	ing per	iod/era?		
	A)	Precambrian			B)		vician		
	C)	Silurian			Ď)	None	of these		
55.		rding to the W nated as "Negle Rabies Snake bite				s" (NTF Malaı	')	diseases v	vhich are
	A)	i & ii			B)	ii & i	V		
	C)	i & iii			D)	iii &			
56.		scopy, a techni is based on the Total internal Diffraction	pheno	menon o	-	Interf	erence	r inner pa	rts of the
57.	comp	equencing of the leted in 1996. T			as:		- ,	of an orga	nism was
	A) C)	Yeast Human being			B) D)		o mouse odium vivax		
58.		rflies, of the sble stinging be Aposematic of	es and	wasp is		nple of	e striped bla	nck and y	yellow to
	C)	Batesian min		Oli	D)	-	uflage		
59.		ort length of do ne bases. The t 120							
60.	pH of	10 ⁻⁸ M HCl							
00.	A)	7.1	B)	8.1		C)	5.9	D)	6.9

61.		losed vessel of losed vessel o	value of e	-	-				
62.	SWIS A) C)	S-PORT is rela Portable data Sequence data			B) D)		Bank data sequence data	a	
63.	Secon A) B) C) D)	dary binding is Inner acroson Inner acroson Galactosyl tra Outer sperm p	nal memb nal memb nnsferase	orane a orane a l	nd ZP2 nd ZP3 ZP3				
64.	Mass A) C)	Spectrometry de Tautomers Constitutiona			tiate be B) D)	Functi	onal isomers l isomers		
65.	Which A) B) C) D)	 B) Involves the assembly of guide strand to siRISC and not passenger strand C) Export of processed siRNA to the cytoplasm by Exportin-5 for maturation by DCR1 							
66.	The smade	ubunits at the	active ce	nter o	f RNA	Polymo	erase holoenz	zymes in	E.coli is
	A)	α_2 subunits			B)	β and	3' subunits		
	C)	β and σ subur	nits		D)	α -CT	D subunits		
67.	Sneak A) B) C) D)	synthesis is Basal level en Protein produ Glucogenesis None of these	ction dur			d starva	tion		
68.	Which A) C)	n among the fol Nasonov's gla Pavan's gland	and	a phe	romone B) D)	-	r's gland	ney bee?	
69.		on of different onship to each of Paralogs Synteny	-	-	ossessii B) D)		arative genes	e and	functional

70.	Name the compound released from plant cells, which is detected by <i>Agrobacterium tumifaciens</i> that enables <i>vir</i> gene expression on Ti plasmid								
	_	ě .		_	-	i i piasiii	Iu		
	A) C)	Indolacetate Zeatin	B) D)	Nopa Acete	osyringone				
71.		n of the following is the funct	tion of	polynuc	cleotide kinase	e, the en	zyme used		
	m DN A)	A recombinant technology? Add a phosphate to the 3'-C permit ligation)H end	of the p	olynucleotide	to label	it or		
	B)	Add phosphate tails to the 3	'-OH e	nds of a	linear duplex				
	C)	Add phosphate tails to the 5							
	D)	None of the above			•				
72.	Number of overturn of duplex axis of a double stranded DNA around the supercoiling axis is called								
	A)	Twist	B)	Writl	h				
	C)	Linking number	D)	Supe	rhelical densit	y			
73.		CR used to generate single stars probes or even as primers	tranded	copies	of a DNA sec	quencing	g or can be		
	A)	Asymmetric PCR	B)	Inver	se PCR				
	C)	RT PCR	D)	Real	Time PCR				
74.		ryotic DNA polymerase γ is in	nvolved	l in					
	A)	DNA repair							
	B)	Primer synthesis in the lead	_	nd					
	C)	Mitochondrial DNA replication							
	D)	Elongation of leading strand	l						
75.	Which of the following is the cleavage point of chymotrypsin of bovine pancreas?								
	A)	Phe, Trp, Tyr (C)	B)	-	Trp, Tyr (N)				
	C)	Asp, Glu (C)	D)	Asp,	Glu (N)				
76.	The a	nutoimmune disease mediated Grave's disease	by stin B)	_	g or blocking a in dependant of				
	C)	Good Pasture's syndrome	D)		imoto's Thyro		memus		
		•	,	114511	imoto s riigio	iditis			
77.		se transporter expressed in m							
	A)	GLUT 2 B) GLU	Τ4	C)	GLUT 5	D)	GLUT 6		
78.		otent and specific inhibitor of							
	A)	Ouabain	B)		sigargin				
	C)	Vanadate	D)	Vinb	lastine				
79.		transporters are							
	A)	ATP dependant transporters		. ,					
	B)	Responsible for antitumor d	_	istance					
	C)	Present in plasma membrane	e						
	D)	All of the above							

80.	A) B) C)	B) Enhances binding with antitoxinC) Reduces the pharmacologic activity of the toxin						
	D)	Induces only immunity						
81.	Norm A) C)	nal human blood has the lowest Monocyte Basophil	t percen B) D)	tage of Eosinophil Neutrophil				
02	,	•	,	1				
82.	α-ama A)	anitin inhibits Only RNA polymerase I	B)	Only RNA polymerase II				
	C)	Only RNA polymerase III						
83.	imme	· • • • • • • • • • • • • • • • • • • •		in linking together sister chromatids g them together as the chromosome				
	A)	-	B)	Cohesin				
	C)	Histones	D)	Condensins				
84.	Rieske – center, the iron-sulfur protein center, is found in which of the following electro carrying complex of respiratory chain?							
	A)	Complex I	B)	Complex II				
	C)	Complex III	D)	Complex IV				
85.	Effect A)	tive population size (N_E), dense $N_E = \frac{N_m N_f \times 4}{N_m + N_f}$	sity of p	opulation is given by N in ecology				
	B)	$N_E = \underbrace{N_m N_f \times 2}_{N_m + N_f}$						
	C)	$N_E = \underbrace{N_m N_f}_{N_m + N_f \times 4}$						
	D)	$N_E = \underbrace{N_m N_f}_{N_m + N_f \times 2}$						
86.	Ultra	violet light exposure in DNA c	auses					
	A)	Pyramidine dimer	B)	Single strand break				
	C)	Base deletions	D)	Purine dimer				
87.	The corgan		sympath	etic post ganglionic fibers and effector				
	A)	Acety choline	B)	Adrenaline				
	C)	Epinephrine	D)	Nor-epinephrine				

88.	Prote A)	ins that connect gap ju Connexins B)	unction are Aquaporin	C)	Selectin	D)	Separin
89.	Acros A) C)	some of spermatids is Nucleolus Mitochondria	s formed by B) D)	Centr Golg	riole i body		
90.	What A) C)	are MCM proteins? Kinase Inhibitor molecules	B) D)	Helic Nucle			
91.	Bony A) C)	fishes are Ammonitelic Urecotelic	B) D)	Ureo Both	telic A & C		
92.		h of the following ac sterol synthesis? Glucagon ACAT	B) D)		esterol	uctase a	nd favours
93.	Lesch A) B) C) D)	n-Nyhan syndrome is Adenosinephosphor Adenosine deamina Hypoxanthyine gua Thymidylate syntha	ribosyl transfera se nine phosphoril	ise	٠		
94.	Whic A)	h of the following is c Thermogenin B)	called an uncoup Leptin	oling pro	otein? Ghrelin	D)	Insulin
95.	Whic A)	h one of the following Dieldrin B)	g is not a synthe Toxaphene	tic orga C)	nic insecticide BHC	e? D)	Quassia
96.	Whic A) B) C) D)	h of the following set Malaria, mumps, po Diphtheria, leprosy, Cholera, typhoid, m Tetanus, tuberculos	oliomyelitis , plague numps	ial disea	ase?		
97.	Life (A)	cycle of plasmodium i Syngamy Erythrocytic schizo	B)	Spor	d ogony of these		
98.	Stuar A) C)	t Power factor of bloo Factor III Factor X	d clotting is B) D)	Facto Facto	or IX or XIII		

99.	Name the test used to estimate the difference in observed result in frequencies and expected result of an experiment						
	A)	Z Test	B)	F	Γest		
	C)	T Test	D)		i Square Test		
100.	The fi	rst step of β oxidation in	nvolves the	activa	tion of fatty acid	d in the pr	esence of
	A)	Ca++ and thiokinase			•	1	
	B)	ATP and thiokinase en	•				
	C)	. 3					
	D)	ATP and aldehyde del	nydrogenas	e			
101.		the Class II promoter	-		d about 25 bas	e pair up	stream of
	transc A)	ription start site in high GC box	er eucaryot B)		REs		
	C)	TATA box	D)		AAT box		
	C)	171171 00%	D)	Ci	1111 001		
102. The composition of 50s subunit of prokaryotic ribosome							
	A) B)	5S rRNA, 23S rRNA 5S rRNA, 28S rRNA					
	C)	5.8S rRNA, 28S rRN					
	D)	18S rRNA, 16S rRNA					
	,	ŕ	ŕ				
103.		n of the following is call	-		C DNA		
	A)	16S r RNA	B)		S r RNA		
	C)	23S r RNA	D)	18	S r RNA		
104.	The a	ntibiotic that inhibits pe	ptidyl trans	ferase	of 50S ribosom	al subunit	s and thus
		s chain elongation in pro	-				
	A)	Tetracycline	B)		reptomycin		
	C)	Erythromycin	D)	Ch	loramphenicol		
105.	Ubiqu	itin attaches to target pr	roteins via	covaler	nt bond between	C-termin	al glycine
		iquitin and ε side chain					
	A)	Lys B)	Gly	C)	Leu	D)	Val
106.	What	are Bence-Jones proteir	15?				
100.	A)	Light chains of immur					
	B)	Heavy chains of immu	_				
	C)	A hydrophobic transm		equenc	e		
	D)	Extracellular hydroph	ilic spacer j	protein	S		
107.	Cosm	opolites sordidus is the	pest of				
	A)	Sugar cane B)	Jowar	C)	Banana	D)	Cotton
108.	Hunge	er hormone secreted by	stomach				
100.	A)	Pituitary hormone	B)	Gł	nrelin		
	C)	Flexin	D)		elanin		
			/				

109.		of dentition in grazing mamma		
	A)	Lophodont	B)	Secodont
	C)	Bunodont	D)	Selenodont
110.	ABO l	plood group is determined by a		
	A)	Chromosome No 12	B)	Chromosome No 6
	C)	Chromosome No 9	D)	Chromosome No 3
111.	calmo	dulin. Each calmodulin can bii		
	A)	1 Ca^{2+} B) $2Ca^{2+}$		C) 3 Ca^{2+} D) 4 Ca^{2+}
112.		nulated lactic acid from murted to glucose by a process	scles is	s carried to the liver via blood and
	A)	Kerb cycle	B)	Cori cycle
	C)	Glycosylate cycle	D)	None of these
113.		nticoagulant found in uterine v	vall whi	ich prevent clotting of menstrual blood
	A)	Warfarin	B)	Heparin
	C)	Citrate salt	D)	Plasmin
114.	Which	reptilian species was included	d in the	latest "Red List" of threatened species?
	A)	Cecaelian	B)	Rana cartipus
	C)	Ophiophagus Hannah	D)	1
115.	Numb	er of linkage group in an orgai	nism is	always equal to
	A)	Number of X chromosome	B)	
	C)	Number of barr bodies	D)	Haploid number of chromosomes
116.	Discol	plastula is the chareteristic of		
	A)	Fishes	B)	Reptiles
	C)	Birds	D)	All of these
117.	SA No	ode of pacemaker is kept on the	e	
	A)	Right auricle	B)	Left auricle
	C)	Right ventricle	D)	Left ventricle
118.	Cowpe	er's gland is associated with		
	A)	Circulatory system	B)	Reproductive system
	C)	Nervous system	D)	Muscular system
119.	Hemo	globin is formed of		
	A)	2 α and 2 β subunits	B)	3α and 1β subunits
	C)	1 α and 3 β subunits	D)	Only a subunits
120.	Duct o	of Rivinus is in		
	A)	Parotid gland	B)	Sub-maxilliary gland
	C)	Sub-lingual gland	D)	None of these