



Gujarat Biotechnology Research Centre
Technical Assistant (Group-III) - Prelims
Question Paper

Exam Date : 23 April 2023

Time: 01:00 pm to 02:00 pm

1	સવેળા શબ્દનો વિરુદ્ધાર્થી આપો.				C
	A	સમયસરનું	B	કટાણું	
	C	કવેળા	D	માફકસર	
2	ચાદર જોઈને સોડ તણાય.				B
	A	લાંબી સોડ તણાવી	B	શક્તિ પ્રમાણે ખર્ચ કરાય	
	C	શક્તિ જોયા વગર ખર્ચ કરાય	D	શક્તિ બહાર ખર્ચ કરાય	
3	કઈ વિભક્તિ વિશેષણ વિભક્તિ તરીકે ઓળખાય છે?				D
	A	પહેલી	B	બીજી	
	C	ચોથી	D	છઠી	
4	જળક્રીડા કયો સમાસ છે ?				B
	A	તત્પુરુષ	B	મધ્યમપદલોપી	
	C	બહુવ્રીહિ	D	ઉપપદ	
5	નીચેનામાંથી કયૂ મૃત નામ છે ?				B
	A	ગુસ્સો	B	હિંચકો	
	C	અદેખાઈ	D	ન્યાય	
6	બારણું બંધ રાખવાનો લાંબો આડો દાંડો ..				B
	A	અંપો	B	ભોગળ	
	C	દંડૂકો	D	ડેલો	
7	સરસ્વતીચંદ્ર નવલકથાના લેખક કોણ છે?				D
	A	ક. મા. મુનશી	B	નર્મદ	



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	C	રસિકલાલ મહેતા	D	ગોવર્ધનરામ ત્રિપાઠી	
8	લોહીની સગાઈ વાર્તાના સર્જકનું નામ જણાવો.				D
	A	પીતાંબર પટેલ	B	પન્નાલાલ પટેલ	
	C	રાવજી પટેલ	D	ઈશ્વર પેટલીકર	
9	નરસિંહ મહેતાની કઈ રચના ખ્યાતનામ છે ?				C
	A	પદ્યવાર્તા	B	ગરબા	
	C	પ્રભાતિયા	D	છપ્પા	
10	ચક્રોર ગુજરાતનાં જાણીતા ____ છે.				A
	A	કાર્કનિસ્ત	B	શિલ્પકાર	
	C	ચિત્રકાર	D	નૃત્યકાર	
11	Let ____ play cricket.				A
	A	us	B	our	
	C	we	D	they	
12	My pen is here. Where is ____ ?				D
	A	you	B	he	
	C	your	D	yours	
13	She writes on the blackboard. - Convert the sentence in past perfect tense.				C
	A	She was written on the blackboard	B	She had wrote on the blackboard	
	C	She had written on the blackboard	D	She written on the blackboard	
14	The cyclone caused ____ damage to the city.				C
	A	extended	B	extension	
	C	extensive	D	extend	
15	Do not make ____ noise.				A
	A	A	B	An	
	C	The	D	No article	
16	I like mangoes, my friend Monika likes them ____.				D



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	A	into	B	to	
	C	twice	D	too	
17	Select odd one from the following.				C
	A	Catch	B	Hold	
	C	Ball	D	Take	
18	Find out 'Adverb' from the following sentence : The good persons always act honestly with other people.				C
	A	people	B	good	
	C	honestly	D	other	
19	We will be ____ by our Guest Speaker tomorrow.				B
	A	addresses	B	addressed	
	C	address	D	addressing	
20	We regret to inform you that we ____ just ____ our new house.				A
	A	have, sold	B	had, sold	
	C	are, selling	D	has, sold	
21	JLN: SQO:: PRT : ?				B
	A	UTV	B	YWU	
	C	TUV	D	VUT	
22	3,5,9,15,.....				C
	A	21	B	20	
	C	23	D	22	
23	નીચેનામાંથી કયું લિપ વર્ષ નથી ?				D
	A	ઈસ 1600	B	ઈસ 1200	
	C	ઈસ 800	D	ઈસ 1000	
24	તમારો લાઈનમાં બંને તરફ નવમો નંબર છે તો લાઈનમાં કુલ કેટલી વ્યક્તિઓ હશે?				A
	A	17	B	15	
	C	16	D	18	
25	આ શ્રેણી જુઓ : 1000, 200, 40, હવે પછી કયો નંબર આવશે?				A
	A	8	B	15	
	C	10	D	20	



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26	ગોરખનાથનું શિખર ક્યાં આવેલું છે ?				A
	A	ગિરનારની ટેકરીઓ	B	અલેકની ટેકરીઓ	
	C	બરડાની ટેકરીઓ	D	અલેયની ટેકરીઓ	
27	ગુજરાતનું સૌથી મોટું મત્સ્યકેન્દ્ર નીચેનામાંથી કયું છે ?				D
	A	ઓખા	B	અમરેલી	
	C	પોરબંદર	D	વેરાવળ	
28	ગુજરાતમાં મેન્ગ્રૂવ જંગલો મુખ્યત્વે ક્યાં છે ?				C
	A	રાજકોટ, સુરેન્દ્રનગર	B	જુનાગઢ, નવસારી	
	C	જામનગર, કચ્છ	D	વડોદરા, દાહોદ	
29	ગુજરાતમાં બટાકાનું સૌથી વધારે ઉત્પાદન ક્યા જિલ્લામાં થાય છે ?				C
	A	દાહોદ	B	સુરેન્દ્રનગર	
	C	બનાસકાંઠા	D	ખેડા	
30	સહકારી ક્ષેત્રે ગુજરાતનું સૌપ્રથમ ખાંડનું કારખાનું ક્યાં સ્થાપવામાં આવ્યું હતું ?				A
	A	બારડોલી	B	નવસારી	
	C	વલસાડ	D	ચીખલી	
31	સિદ્ધરાજ જયસિંહના માતા નું નામ શું હતું ?				C
	A	ઉર્મિલાદેવી	B	કાનનદેવી	



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	C	મીનળદેવી	D	તેજલદેવી	
32	ડો. જીવરાજ મહેતા ગુજરાતનાં કયાં મુખ્યમંત્રી હતા ?				B
	A	ત્રીજા	B	પહેલા	
	C	બીજા	D	એક પણ નહિ	
33	મહાભારતનું મૌસલપર્વ જે યાદવાસ્થલીનું વર્ણન કરે છે તે, સ્થળ કયું ?				A
	A	પ્રભાસ	B	ડાકોર	
	C	ઓખા	D	મથુરા	
34	ભરુચનું પ્રાચીન નામ શું હતું ?				D
	A	ભૃગુપૂર	B	સ્તંભતીર્થ	
	C	દધીપદ્મ	D	ભૃગુકચ્છ	
35	અમીર નગરીના ગરીબ ફકીરનું બિરુદ નીચેનામાંથી કોને મળ્યું છે ?				B
	A	ન્હાનાલાલ	B	ઇંદુલાલ યાજ્ઞિક	
	C	રા.વી. પાઠક	D	રમણભાઈ નીલકંઠ	
36	Centrosome duplication takes place in this phase				A
	A	S phase	B	G1 phase	
	C	G0 phase	D	M phase	
37	Lac Operon will be turned on when				C
	A	Lactose is less than glucose	B	Lactose is less in the medium	
	C	Lactose in more than glucose	D	Glucose is enough in the medium	
38	Which of the following is an obligate parasite?				D



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	A	Bacteria	B	Fungi	
	C	Protozoa	D	Virus	
39	After the process of fermentation, penicillin is recovered as				B
A	Magnesium Penicillin	B	Potassium penicillin		
C	Calcium penicillin	D	Sodium penicillin		
40	Select the option not depicting a Greenhouse Gas				B
A	Carbon Dioxide	B	Nitrogen		
C	Chlorofluorocarbon	D	Methane		
41	Left Handed DNA is _____ and it has _____ Pattern.				C
A	A-DNA, Double Helical Pattern	B	B-DNA, Circular Pattern		
C	Z-DNA Zig-Zag Pattern	D	C-DNA, Single Stranded		
42	Which bacterium is used in the production of insulin by genetic engineering?				C
A	Azotobacter	B	Rhizobium		
C	Escherichia Coli	D	Mycobacterium		
43	The expression of a transgene in the target tissue is identified by a				B
A	Transgene	B	Promoters		
C	Enhancer	D	Reporter		
44	Which of the following is a micronutrient that helps in nitrogen metabolism of plants?				A
A	Molybdenum	B	Zinc		
C	Copper	D	Sulphur		
45	Plants growing under shade are known as				B
A	Psamophytes	B	Sciophytes		
C	Heliophytes	D	Monocots		
46	The vitamin that is most rapidly manufactured in our body is:				D
A	Vitamin A	B	Vitamin B		
C	Vitamin C	D	Vitamin D		
47	Restriction enzymes were discovered by				A
A	Smith and Nathans	B	Alexander Fleming		
C	Berg	D	None		
48	Bacteria protect themselves from viruses by fragmenting viral DNA				B



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	with				
	A	Ligase	B	Endonuclease	
	C	Exonuclease	D	Gyrase	
49	Klenow fragment is derived from				B
	A	DNA Ligase	B	DNA Pol-I	
	C	DNA Pol-II	D	Reverse Transcriptase	
50	Southern blotting is				B
	A	Attachment of probes to DNA fragments	B	Transfer of DNA fragments from electrophoretic gel to a nitrocellulose sheet	
	C	Comparison of DNA fragments to two sources	D	Transfer of DNA fragments to electrophoretic gel from cellulose membrane	
51	ELISA is				D
	A	Using radiolabelled second antibody	B	Usage of RBCs	
	C	Using complement-mediated cell lysis	D	Addition of substrate that is converted into a coloured end product	
52	The Golden Rice variety is rich in				B
	A	Vitamin C	B	B-carotene and ferritin	
	C	Biotin	D	Lysine	
53	The DNA fragments have sticky ends due to				B
	A	Endonuclease	B	Unpaired bases	
	C	Calcium ions	D	Free methylation	
54	Plasmids are used as cloning vectors for which of the following reasons?				B
	A	Can be multiplied in culture	B	Self-replication in bacterial cells	
	C	Can be multiplied in laboratories with the help of enzymes	D	Replicate freely outside bacterial cells	
55	The human genome project was launched in the year				C
	A	1980	B	1973	



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	C	1990	D	1989	
56	The vaccines prepared through recombinant DNA technology are				A
	A	Third generation vaccines	B	First-generation vaccines	
	C	Second-generation vaccines	D	None	
57	Which is a genetically modified crop?				D
	A	Bt-cotton	B	Bt-brinjal	
	C	Golden rice	D	All	
58	PCR technique was invented by				A
	A	Karry Mullis	B	Boyer	
	C	Sanger	D	Cohn	
59	The first transgenic plant to be produced is				B
	A	Brinjal	B	Tobacco	
	C	Rice	D	Cotton	
60	RNA interference helps in				C
	A	Cell proliferation	B	Micropropagation	
	C	Cell defense	D	Cell differentiation	
61	Animal cell cultures are used widely for the production of				C
	A	insulin	B	somatostatin	
	C	mabs	D	thyroxine	
62	The first vaccine developed from animal cell culture was				D
	A	Hepatitis B vaccine	B	Influenza vaccine	
	C	Small pox vaccine	D	Polio vaccine	
63	Recombinant proteins are				B
	A	proteins synthesized in animals	B	proteins synthesized by transgene in host cell by rDNA technology	
	C	proteins synthesised in cells	D	proteins synthesized in	



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		that are produced by protoplast fusion		mutated cell lines	
64	The production of complete animals from somatic cells of an animal is called				B
	A	gene cloning	B	animal cloning	
	C	cell cloning	D	all of these	
65	The first successfully cloned animal was				C
	A	monkey	B	gibbon	
	C	sheep	D	rabbit	
66	Teminism is				A
	A	a central dogma reverse	B	a central dogma of molecular biology	
	C	a circular flow of hereditary material	D	an effect of cytoplasm on functioning of DNA	
67	The coding sequences found in split genes are called				C
	A	Operons	B	introns	
	C	exons	D	cistrons	
68	The removal of which enzyme affects the synthesis of hnRNA in eukaryot				A
	A	RNA polymerase II	B	RNA primase	
	C	RNA polymerase III	D	RNA polymerase I	
69	Sickle cell anemia is caused				B
	A	When valine is replaced by glutamic acid in beta polypeptide chain	B	When glutamic acid is replaced by valine in beta polypeptide chain	
	C	When glutamic acid is replaced by valine in alpha polypeptide chain	D	When valine is replaced by glutamic acid in alpha polypeptide chain	
70	The percentage of human genome which encodes proteins is approximately				A
	A	Less than 2.5%	B	5%	
	C	25%	D	99%	
71	Which of the following condition is called monosomics				C
	A	$2n+1$	B	$2n+2$	



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	C	$2n-1$	D	$n+1$	
72	A phenomenon of a single gene regulating several phenotypes is called				B
	A	Multiple allelism	B	Pleiotropy	
	C	Incomplete dominance	D	Co-dominance	
73	Turner's syndrome is				A
	A	XO	B	XXY	
	C	XXX	D	YYY	
74	Test cross is a cross between				B
	A	Hybrid x Dominant parent	B	Hybrid x Recessive parent	
	C	Hybrid x Hybrid	D	Dominant parent x Recessive parent	
75	Mendel developed his basic principles of heredity by				B
	A	Microscopic study of chromosomes and genes	B	Mathematical analysis of the offspring of Pea plant	
	C	Breeding experiments with Drosophila	D	Anatomical studies of Pea plant	
76	In nucleic acids, the bases are covalently attached to the 1-position of a pentose sugar ring, to form a:				C
	A	nucleotide	B	DNA single strand	
	C	nucleoside	D	Glycosidic bond.	
77	More than 50% of the mass of chromatin is				B
	A	DNA	B	protein.	
	C	RNA	D	fiber	
78	The ends of the linear chromosomal DNA are protected from degradation and gradual shortening by the:				C
	A	endonucleases	B	exonucleases	
	C	telomeres	D	cap structure	
79	In replication: soon after synthesis, the DNA fragments are joined to make one continuous piece of DNA by the enzyme:				A
	A	DNA ligase	B	DNA polymerase	
	C	primase	D	helicase	
80	RNA-directed RNA polymerase, used in replication of some RNA				B



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	viruses termed as				
	A	RNaseH	B	replicase	
	C	TrpR	D	resolvase.	
81	The enzyme which removes hydrogen from the substrate is known as:				B
	A	Oxido-Reductase	B	Dehydrogenase	
	C	Hydrogenase	D	Hydrolysis	
82	Small cDNA sequence that represents a unique segment of an active gene is called				C
	A	SNPs	B	SnRNAs	
	C	ESTs	D	Contigs	
	Which of the following is not correct about FASTA?				D
83	A	Its stands for FAST ALL	B	It was in fact the first database similarity search tool developed, preceding the development of BLAST	
	C	FASTA uses a 'hashing' strategy to find matches for a short stretch of identical residues with a length of k	D	The string of residues is known as blocks	
84	The association which involves the exchange of nutrients between two species is referred to as _____				B
	A	mutualism	B	syntrophism	
	C	commensalism	D	antagonism	
85	In carbon cycle flow of energy is _____				B
	A	bidirectional	B	linear	
	C	cyclic	D	irreversible	
86	Which among the following is a competitive and sustainable alternative for environment?				B
	A	Bio-leaching	B	Bio-remediation	
	C	Bio-fortification	D	Immobilization	
87	Which is the first Restriction endonuclease to be isolated and characterized?				A
	A	EcoRI	B	BamHI	
	C	Sma I	D	Hind II	
88	Which is not a component of phylogenetic tree?				D
	A	Taxon	B	Node	
	C	Root	D	Motif	
89	Which is not a type of homologous sequence?				D
	A	Orthologous	B	Paralogous	
	C	Xenologous	D	Analogous	



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90	What is the correct order of taxonomic groups from higher to lower rank?				D
	A	Kingdom – Order – Class – Family – Genus – Species	B	Order – Class – Division – Family – Genus – Species	
	C	Kingdom – Division – Order – Family – Class – Genus – Species	D	Kingdom – Division – Class – Order – Family – Genus – Species	
91	Lipinski's rule of five is used for				C
	A	Docking	B	Similarity search	
	C	Drug likeness	D	Dynamics simulation	
92	Which of the following is necessary for Blood clotting in humans?				D
	A	Vitamin A	B	Vitamin C	
	C	Vitamin E	D	Vitamin K	
93	Which of the following proteins does not function in cell-cell interaction?				B
	A	Cadherin	B	Cytochrome C	
	C	Integrin	D	N-CAM	
94	A Fab fragment				C
	A	Is Crystallized fragment	B	Is produced by separation of heavy and light chain	
	C	Binds with antigen	D	Lacks light chain	
95	Malaria is an example of				A
	A	Protozoal disease	B	Virus disease	
	C	Prions disease	D	Bacterial cause	
96	Which biological material is most commonly used in biosensors?				C
	A	Antibodies	B	Nucleic acids	
	C	Enzymes	D	Lectins	
97	Which of the following statements is not applicable to viruses?				D
	A	The virus replicates in a bacterial host	B	The protein coat of a virus does not enter the host cell	
	C	The genetic material is DNA or RNA	D	Virus replicate autonomously in the absence of host	
98	Which of the following cells is involved in cell-mediated immunity?				B
	A	NK cells	B	T cells	
	C	Mast cells	D	Thrombocytes	
99	Which is concerned with determination of the function of a gene product?				C
	A	Functional proteomics	B	Structural proteomics	
	C	Functional genomics	D	Structural genomics	
100	The information retrieval tool of NCBI GenBank is				A
	A	Entrez	B	STAG	
	C	Seqin	D	Text search	



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