

Application No.: _____.



Gujarat Biotechnology Research Centre

Prelims Exam

Scientist-B (Group-I)

Total MCQ: 100

Total Duration: 1 Hour

Do not open unless asked to do so

Instructions for Candidate:

1. This question booklet contains 100 questions, and each correct answer carries 1 mark.
2. Every attempted question with an incorrect answer shall carry a negative mark of 0.25.
3. Choose 'E' Option if you don't want to attempt a question, if no option is marked, 0.25 marks will be deducted.
4. Use only Blue/Black Ball Point Pen to darken the appropriate circle in OMR.
5. Please darken the complete circle.
6. Darken **ONLY ONE CIRCLE** for each question as shown below:



7. The answer once marked, cannot be changed.
8. Please do not make any stray marks on the Question Booklet.
9. Do not fold the OMR sheet.
10. Rough work must be done on the blank page of the Question Booklet.
11. Mark your answer in the appropriate space in the Answer Sheet against the Number corresponding to the question.
12. The Candidate has to submit a Question booklet and OMR response sheet to the invigilator at the conclusion of the examination.

I have read all the instructions above.

Candidate Signature: _____

Invigilator Signature: _____

1	" જ્યેષ્ઠ " નો વિરુદ્ધાર્થી શબ્દ લખો			
	A	કનિષ્ઠ	B	સમ્યક
	C	અગ્રજ	D	કનિષ્ઠ
2	સમાસ ઓળખવો - મહાદેવ			
	A	તત્પુરુષ	B	કર્મધારય
	C	દ્વિગુ	D	બહુવ્રીહિ
3	"થાપોટ " તળપદો શબ્દ છે જેનો અર્થ શોધો			
	A	નથણી	B	થરથરાટ
	C	ટપલી	D	નઠારુ
4	અનુષ્ટુપ છંદમાં કેટલા ચરણ હોય છે ?			
	A	8	B	3
	C	4	D	2
5	" વનિતા " નો સમાનાર્થી શબ્દ લખો			
	A	નારી	B	ચારુ
	C	તેજી	D	નાજીક
6	કયો શબ્દ અર્થ દ્રષ્ટિએ અલગ પડે છે?			
	A	કબૂલ	B	શિરસ્તો
	C	પ્રથા	D	રિવાજ
7	શબ્દ સમૂહ માટે એક શબ્દ આપો : હજાર હાથ જેને છે તે			
	A	બાહુબલી	B	સોબાહુ
	C	બળવાન	D	સહસ્રબાહુ
8	નીચે આપેલા વિકલ્પમાંથી સાચી જોડણી દર્શાવો.			
	A	આઈસક્રીમ	B	આઈક્રીમ
	C	આઈસક્રિમ	D	આઈસ્ક્રિમ
9	"સૌરાષ્ટ્રની રસધાર" ના લેખક કોણ છે ?			
	A	ઝવેરચંદ મેઘાણી	B	જ્યોતીન્દ્ર દવે
	C	જીવરામ જોષી	D	જયંત પાઠક
10	રૂઢિપ્રયોગનો અર્થ જણાવો - કારી ન ફાવવી			
	A	બેસતા ન ફાવવું	B	વાત ન ગમવી
	C	યુક્તિ સફળ થવી	D	યુક્તિ સફળ ન થવી
11	A rare event			
	A	A full moon	B	A red moon
	C	A blue moon	D	A radiant moon
12	A lazy person can never _____ in life.			
	A	Successful	B	Success
	C	Succeed	D	Successful
13	Gandhi fought for _____ freedom of our country.			
	A	The	B	A
	C	An	D	No article
14	He bought _____			

	A	A number of books	B	The number of books
	C	The numbers of books	D	A numbers of books
15	Give the plural form: 'Calf'			
	A	Calf	B	Calves
	C	Calfes	D	Calfs
16	Prevention is ____ than cure.			
	A	Worse	B	Better
	C	The best	D	Good
17	The sooner, ____.			
	A	The more better	B	The best
	C	The better	D	The worst
18	An apple _____ on his head yesterday.			
	A	Drops	B	Dropping
	C	Dropped	D	Drop
19	Please start your meal, I _____ the dish.			
	A	Have served	B	Have serve
	C	Have been serving	D	Have serving
20	The pandit was a _____ man.			
	A	Learning	B	Learns
	C	Learned	D	Learned
21	કાઝીરંગા નેશનલ પાર્ક નીચે પૈકી કયા રાજ્યમાં આવેલું છે ?			
	A	ઓડિશા	B	આસામ
	C	કેરળ	D	તમિલનાડુ
22	"સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ રિયર્સ ઇન્સ્ટિટ્યૂટ" ગુજરાતના કયા શહેરમાં આવેલું છે ?			
	A	અમદાવાદ	B	વડોદરા
	C	રાજકોટ	D	ભાવનગર
23	વર્તમાનમાં લોકસભાના કેટલા સભ્યો રાજ્યોમાંથી ચૂંટાઈ આવે છે?			
	A	500	B	530
	C	545	D	552
24	'ADMINISTRATION' શબ્દનો ઉપયોગ કરી નીચેનામાંથી કયો શબ્દ ન બનાવી શકાય?			
	A	STRAIN	B	TRADITION
	C	SITUATION	D	RATION
25	રાજેશનો લાઈનમાં બંને તરફ 11 મી નંબર છે. તો લાઈનમાં કુલ કેટલી વ્યક્તિઓ હશે?			
	A	14	B	19
	C	23	D	21
26	કમ્પ્યુટર નુ IP એડ્રેસ કેટલા બીટ નુ બનેલું હોય છે??			

	A 16	B 32
	C 64	D 128
27	ઓપરેટિંગ સિસ્ટમ કયા પ્રકારનું સોફ્ટવેર છે ?	
	A એપ્લિકેશન સોફ્ટવેર	B સિસ્ટમ સોફ્ટવેર
	C પ્રોગ્રામ સોફ્ટવેર	D યુઝર સોફ્ટવેર
28	કોઈ સાંકેતિક ભાષામાં SUMAN ને UWOCF લખી શકાય તો તે ભાષામાં MANDAL ને કેવી લખી શકાય ?	
	A OCPFEN	B OCPCEN
	C OCPECN	D OCPFCN
29	ACE:HIL::MOQ:___?	
	A TUX	B XVT
	C SUW	D WUS
30	સૂર્યમંડળનો નાનામાં નાનો ગ્રહ કયો છે?	
	A બુધ	B શુક્ર
	C મંગળ	D ગુરુ
31	ગુજરાતનું સૌથી મોટું મત્સ્યકેન્દ્ર નીચેનામાંથી કયું છે ?	
	A ઓખા	B અમરેલી
	C પોરબંદર	D વેરાવળ
32	હિન્દ સ્વરાજના લેખક કોણ છે ?	
	A કાકાસાહેબ કાલેલકર	B ક. માં. મુન્શી
	C સ્વામી આનંદ	D મહાત્મા ગાંધી
33	નરસિંહ મહેતાના પદ કયા નામે પ્રસિદ્ધ થયા છે ?	
	A ચાબખા	B ઝૂલણા
	C પ્રભાતિયા	D હાઈકુ
34	સિદ્ધરાજ જયસિંહના માતા નું નામ શું હતું ?	
	A ઉર્મિલાદેવી	B કાનનદેવી
	C મીનળદેવી	D તેજલદેવી
35	બાપુ એટલે બાપુ - અલંકાર ઓળખાવો.	
	A અનન્વય	B ઉત્પ્રેક્ષા
	C વર્ણાનુપ્રાસ	D શ્લેષ
36	Which of the following diseases is caused by the deficiency of Niacin?	
	A Scurvy	B Rickets
	C Pellagra	D Pernicious anaemia
37	Excess growth hormone would cause all the following EXCEPT _____	
	A Suppression of cancer	B Gigantism in children
	C Acromegaly in adults	D Diabetes
38	Which hormone is tested for confirmation of pregnancy?	
	A Prolactin	B hCG
	C Progesterone	D Oestrogen
39	Peptide bond is a _____	
	A Covalent bond	B Ionic bond
	C Metallic bond	D Hydrogen bond

40	Which of the following allosterically activate glycogen phosphorylase?			
	A	ATP	B	AMP
	C	Glucose 6 phosphate	D	Glucose 1 phosphate
41	Citric acid is produced by _____			
	A	mucor	B	aspergillus
	C	rhizopus	D	erythrocytes
42	An enzyme produced commercially from saccharose _____			
	A	lactase	B	amylase
	C	maltase	D	invertase
43	Blue revolution in India is related to			
	A	Milk	B	Silk
	C	Fish	D	Egg
44	Yeast two-hybrid system is used for			
	A	DNA-protein interactions	B	Protein-protein interactions
	C	C-C interactions	D	Protein-lipid interaction
45	If two restriction enzymes recognizing the same sequence, they are known as			
	A	Isomers	B	Epimers
	C	Enantiomer	D	Isoschizomers
46	A hybrid plasmid containing cos site of lambda phage is known as----			
	A	pBR322	B	pUC
	C	YAC	D	Cosmid
47	Identify three correct termination codons			
	A	AAU, UAG, UGA	B	UGA, UAA, UAG
	C	UAG, UAA, UGC	D	UAA, CUG, UCG
48	The transcription initiation factor associated with the RNA polymerase holoenzyme in prokaryotes is			
	A	β	B	ω
	C	σ	D	α
49	Sanger method of DNA sequencing is also known as			
	A	Dideoxy method	B	Deoxy method
	C	Mono deoxy method	D	HTS method
50	Which of the following is produced by fungi?			
	A	Antibodies	B	Aflatoxins
	C	Interferons	D	Elaters
51	Which is the most sensitive method for detection of protein?			
	A	Western blotting	B	Northern blotting
	C	Southern blotting	D	TLC
52	Which one is an example for chromosomal mutation			
	A	Sickle cell anemia	B	Muscular dystrophy
	C	Phenylketonuria	D	Klinefelter's syndrome
53	Which is the longest phase in Mitosis?			
	A	Prophase	B	Anaphase
	C	Metaphase	D	Telophase
54	The first plant genome sequenced is of			

	A	Neurospora	B	Arabidopsis thaliana
	C	Rice	D	Wheat
55	When two hybrids are crossed, the percentage of recessive is			
	A	25%	B	100%
	C	50%	D	75%
56	Which element constitutes thin base of DNA chip?			
	A	Gold	B	Silver
	C	Silicon	D	Titanium
57	Vacuole membrane is known as			
	A	Nuclear membrane	B	Middle lamella
	C	Leucoplast	D	Tonoplast
58	RFLP is a			
	A	Morphological marker	B	Biochemical marker
	C	Genetic marker	D	Cytological marker
59	Identify the gaseous hormone.			
	A	Auxin	B	Cytokinin
	C	Ethylene	D	Zeatin
60	“Gene for Gene” hypothesis was given by			
	A	Flor	B	Davenport
	C	Vavilov	D	Donald
61	While heating, which vitamin in milk remains heat resistant?			
	A	Vitamin K	B	Vitamin A
	C	Vitamin E	D	Vitamin D
62	In plants, stable transformation of gene is achieved through?			
	A	Agrobacterium	B	Gun method
	C	Electroporation	D	PEG
63	The major protein components of chromatin referred as:			
	A	histones	B	RNA primase proteins
	C	RNA polymerases proteins	D	Transcriptional factors proteins
64	What is the temperature of liquid Nitrogen?			
	A	-90°C	B	-196°C
	C	-20°C	D	0°C
65	Which of the following represents the first plant to undergo transgenic activity?			
	A	Tomato	B	Cotton
	C	Brassica	D	Tobacco
66	Bioluminescence is generated by			
	A	Luciferin	B	Acetylene
	C	Biotin	D	Pectin
67	Which of the following is a source of Bio-diesel?			
	A	Brassica	B	Sun hemp
	C	Nostoc	D	Jatropha
68	Which of the following is a DNA fingerprinting technique?			
	A	HPTLC	B	SDS-PAGE
	C	DOT BLOT	D	RFLP

69	Cow milk is rich in			
	A	Starch	B	Casein
	C	Glycogen	D	Ferritin
70	The trp operon encodes _____ structural genes involved in tryptophan biosynthesis.			
	A	three	B	five
	C	six	D	four
71	While preparing cDNA library one must isolate			
	A	tRNA	B	gRNA
	C	rRNA	D	mRNA
72	The percentage of human genome which encodes proteins is approximately			
	A	Less than 2.5%	B	5%
	C	25%	D	99%
73	Mendel developed his basic principles of heredity by			
	A	Microscopic study of chromosomes and genes	B	Mathematical analysis of the offspring of Pea plant
	C	Breeding experiments with <i>Drosophila</i>	D	Anatomical studies of Pea plant
74	The expansion of ddPCR is:			
	A	dual digital PCR	B	di-deoxy PCR
	C	droplet digital PCR	D	di-deoxy digital PCR
75	Cell lines that are derived from transformed (cancerous) cells are called:			
	A	Primary cell lines	B	Plaques
	C	Continuous cell lines	D	Monolayers
76	Recombinant DNA can be introduced into a host cell by any of the following methods except:			
	A	polymerase chain reaction	B	microinjection
	C	transformation	D	protoplast fusion
77	A gene library:			
	A	involves plasmid but not phage clones	B	is created without the aid of restriction enzymes
	C	involves phage but not plasmid clones	D	is a collection of DNA fragments from a genome
78	Which amino acid is coded only by a single triplet code?			
	A	Alanine	B	Arginine
	C	Cytosine	D	Tryptophan
79	A lichen is formed by mutualism between an algae and _____.			
	A	Diatom	B	Fungus
	C	Phytoplankton	D	Cyanobacteria
80	ABC transporters falls into the category of?			
	A	Passive diffusion	B	Facilitated diffusion
	C	Active transport	D	Group translocation
81	Based on Chargaff's Law which of the following is true?			
	A	A + T = G + C	B	A = G; C = T
	C	A/T = G/C	D	A + G = T + C

82	Eukaryotic chromosomes are metabolically most active in:			
	A	Interphase	B	Prophase
	C	Metaphase	D	Telophase
83	Who provides oxygen in oxidation ponds, used for treatment of organic waste?			
	A	Protozoa	B	Fungi
	C	Algae	D	Hydrogen Peroxide
84	Among the following which is an aromatic amino acid			
	A	Proline	B	Tryptophan
	C	Histidine	D	Lysine
85	The main constituent of compressed natural gas (CNG) is			
	A	methane	B	butane
	C	ethane	D	propane
86	The maximum iron content is present in			
	A	lemon	B	tomato
	C	green vegetables	D	egg
87	Artificial kidney works on the mechanism of			
	A	osmosis	B	plasmolysis
	C	dialysis	D	diffusion
88	Dengue is a disease caused through			
	A	skin	B	intestine
	C	respiration	D	blood
89	Which of the following helps in preventing bleeding in wounds by clotting of blood?			
	A	vitamin C	B	vitamin D
	C	vitamin E	D	vitamin K
90	Chemical used to arrest spindle fiber formation is _____ .			
	A	Ethidium bromide	B	Colchicine
	C	NaOH	D	Tetracyclin
91	The largest gland of the body is			
	A	liver	B	parotid gland
	C	pancreas	D	submandibular gland
92	Infrared Spectroscopy is useful in determining			
	A	proton environment	B	three dimensional structure
	C	molecular weight	D	functional groups
93	The best indicator for the detection of end point in the titration of weak acid and strong base is			
	A	methyl red	B	methyl orange
	C	bromothymol blue	D	phenolphthalein
94	What is Rh in blood group			
	A	rhesus	B	radial
	C	rhizome	D	rhodes
95	5-bromo uracil is base analogue of which nitrogen base			
	A	Thymine	B	Cytosine
	C	Guanine	D	Adenine

96	Which of the following is Anti-Rh antibody?			
	A	IgD	B	IgA
	C	IgM	D	IgG
97	Which among the following is not a chemical database?			
	A	PubChem	B	ChEMBL
	C	ZINC	D	PDB
98	GeneBank and DDBJ are example of			
	A	Primary database	B	Secondary database
	C	Composite database	D	Tertiary database
99	HLA stands for			
	A	Human Leukocyte Antigen	B	Human Lymphocyte Antigens
	C	Human Leukocyte Antibody	D	Human Lymphocyte Antibody
100	Microarray data-analysis does not include the step			
	A	Quality Check	B	Gene ontology
	C	Hierarchical clustering	D	Expression Analysis

----- Space for Rough Work -----
