Sr No.	MSc Bioinformatics
1	In the series 357,363,369,……. What will be the 10th term?
Alt1	405
Alt2	411
Alt3	413
Alt4	417

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Moon: Satellite :: Earth : ?
Alt1	Sun
Alt2	Planet
Alt3	Solar System
Alt4	Asteroid

3	Door is related to Bang in the same way as Chain is related to ……..?.....
Alt1	Thunder
Alt2	Clinch
Alt3	Tinkle
Alt4	Clank

4	Select the lettered pair that has the same relationship as the original pair of words: Emollient: Soothe
Alt1	Dynamo: Generate
Alt2	Elevation: Level
Alt3	Hurricane: Track
Alt4	Precipitation: Fall

5	Which of the following is the same as Count, List, Weight?
Alt1	Compare
Alt2	Sequence
Alt3	Number
Alt4	Measure

6	Spot the defective segment from the following:
Alt1	The downtrodden
Alt2	needs
Alt3	to be uplifted
Alt4	on a war footing

7	Choose the meaning of the idiom/phrase from among the options given: A close shave
Alt1	a nice glance
Alt2	a narrow escape
Alt3	an intimate
Alt4	a triviality

8	Lightning ------- in the same place twice.
Alt1	doesn't hit
Alt2	never strikes
Alt3	never attacks
Alt4	never falls

9	Choose the option closest in meaning to the given word: FLIPPANT
Alt1	serious
Alt2	unsteady
Alt3	irreverent
Alt4	caustic

10	Choose the antonymous option you consider the best: OBSOLETE
Alt1	obscure
Alt2	hackneyed
Alt3	current
Alt4	grasp

11	Akash scored 73 marks in subject A. He scored 56% marks in subject B and X marks in subject C. Maximum marks in each subject were 150. The overall percentage marks obtained by Akash in sall te three subjects were 54%. How many marks did he score in subject C ?
Alt1	84
Alt2	86
Alt3	79
Alt4	73

12	~
Alt1	7 Km
Alt2	15 Km
Alt3	23 Km
Alt4	19 Km

13	If 1st Jan 2012 is a Tuesday then on which day of the week will 1st Jan 2013 fall ?
Alt1	Wednesday
Alt2	Thursday
Alt3	Friday
Alt4	Saturday

14	One morning after sunrise, Reeta and Kavita were talking to each other face to face at University. If Kavita' shadow was exactly to the right of Reeta, which direction was Kavita facing ?
Alt1	North
Alt2	South
Alt3	East
Alt4	West

15	In an exam every candidate took History (or)Geography(or)both. 74.8%took History and 50.2% took Geography. If the Total number of candidates is 1500,how many took History and Geography both?
Alt1	400
Alt2	350
Alt3	750
Alt4	375

16	Which word includes the larger % of Vowels?
Alt1	GOOGLE
Alt2	AMAZON
Alt3	FACE BOOK
Alt4	DOE

17	A= Least prime >24; B=Greatest prime <28; Then
Alt1	A>B
Alt2	A<B
Alt3	A=B
Alt4	None

18	CL X VIII refers
Alt1	861
Alt2	701
Alt3	168
Alt4	107

19	Which of the following is larger than 3/5 ?
Alt1	1/2
Alt2	39/50
Alt3	7/25
Alt4	59/100

20	Mr. Babu travelled 1200 km by air which formed 2/5 of his trip. One third of the whole trip, he travelled by car and the rest of the journey was by train. What was the distance travelled by train?
Alt1	600km
Alt2	700 km
Alt3	800 km
Alt4	900 km

21	You have a protein sequence. You want to know the structure of similar proteins. You should use:
Alt1	BLASTN
Alt2	BLASTX
Alt3	BLASTP
Alt4	TBLASTN

22	The approach that can be used to predict the 3D structure of a protein which has no detectable sequence similarity with the available templates is
Alt1	Homology modeling
Alt2	Comparative modeling
Alt3	Fold recognition
Alt4	ab initio modelling

23	The information retrieval tool for NCBI GenBank data base is
Alt1	Entrez
Alt2	STAG
Alt3	Seqln
Alt4	Text search

24	The graphs of the two linear equations ax + by = c and bx - ay = c, where a, b and c are all not equal to zero:
Alt1	Are parallel
Alt2	Intersect at one point
Alt3	Intersect at two points
Alt4	Perpendicular

25	When a metallic ball is placed inside a cylindrical container, of radius 2 cm, the height of the water, inside the container, increases by 0.6 cm. The radius (to the nearest tenth of a centimeter) of the ball is
Alt1	1 cm
Alt2	1.2 cm
Alt3	2 cm
Alt4	0.6 cm

26	On Ramachandran plot, one amino acid shows phi/psi angle around -75° and -60º. This amino acid should be on a
Alt1	Right handed helix
Alt2	Left handed helix
Alt3	Parallel beta sheet
Alt4	Anti parallel beta sheet

27	The technique of insertion of a desired gene into DNA of a plasmid is
Alt1	Gene splicing

Alt2	Gene dressing
Alt3	Gene cloning
Alt4	Gene drafting

28	Pigment responsible for red colour of tomatoes is
Alt1	Melanin
Alt2	Lycopene
Alt3	Bilirubin
Alt4	Chlorophyll

29	Phase of the cell cycle during which DNA synthesis occurs is
Alt1	G0 phase
Alt2	S phase
Alt3	M phase
Alt4	G1/G2 phase

30	Polycistronic mRNA refers to
Alt1	mRNA which is transcribed by multiple RNA polymerases
Alt2	mRNAs that are simultaneously translated
Alt3	mRNA that is translated by many ribosomes simultaneously
Alt4	mRNA which encodes two or more proteins

31	A thermosflask contains 250 g of tea at 90ºC. To this, 20 g of milk at 5ºC is added. After mixing, what would be the temperature of the mix? (Assume no heat loss. Specific heat of tea and milk as 1 cal/g ºC)
Alt1	3.78ºC
Alt2	8.37ºC
Alt3	37.8ºC
Alt4	83.7ºC

32	Full form of URL is
Alt1	Uniform Resource Locator
Alt2	Uniform Resource Link
Alt3	Uniform Registered Link
Alt4	Unified Resource Link

33	LINUX is a
Alt1	Malware
Alt2	Operating System

Alt3	Application Program
Alt4	Firmware

34	According to the Beer-Lambert Law, on which of the following absorbance does not depend?
Alt1	Concentration of the solution
Alt2	Colour of the solution
Alt3	Distance that the light has travelled through the sample
Alt4	Extinction coefficient of the sample

35	For a spontaneous biochemical reaction, overall Gibb’s free energy should be
Alt1	Positive
Alt2	Negative
Alt3	No change
Alt4	Biochemical reaction and Gibb’s free energy has no relationship

36	Which pair of amino acids absorbs the most UV light at 280 nm?
Alt1	Thr and His
Alt2	Trp and Tyr
Alt3	Cys and Asp
Alt4	Phe and Pro

37	To produce artificial rains, which chemical is used for Cloud Seeding ?
Alt1	Copper Sulphate
Alt2	Ammonium Nitrate
Alt3	Silver Iodide
Alt4	Potassium Premanganate

38	What is the mass (in g) of Na₂CO₃ (molecular mass 106) present in 250 ml of its 0.2M solution?
Alt1	0.53
Alt2	1.06
Alt3	5.3
Alt4	10.6

39	Which of the following enzymes is the first to mix with food in the digestive tract?
Alt1	Pepsin
Alt2	Ptyalin
Alt3	Trypsin
Alt4	Lipase

40	Bacterium used extensively as biopestiside is
Alt1	Bacillus subtilis
Alt2	Escherichia coli
Alt3	Lactobacillus acidophilus
Alt4	Bacillus thuringiensis

41	What is the shape of a typical plot of initial rate vs. substrate concentration for an enzyme catalyzed reaction that follows Michaelis-Menton kinetics?
Alt1	Sigmoidal
Alt2	Parabolic
Alt3	Sinusoidal
Alt4	Hyperbolic

42	Why SDS is used for PAGE?
Alt1	To denature the protein and make the protein overall positive
Alt2	To denature the protein so that it precipitates out
Alt3	To denature the protein and make the protein overall negative
Alt4	To stabilize the protein and to make it more soluble

43	Restriction enzyme EcoRI cleaves DNA at a sequence
Alt1	AAGCTT
Alt2	AAGTTC
Alt3	GAATTC
Alt4	GTAATC

44	The first step of PCR is
Alt1	Annealing
Alt2	Ligation
Alt3	Denaturation
Alt4	Primer extension

45	Cause of Sickle cell anemia is
Alt1	Mutation of a glutamate to valine on beta-globin chain of hemoglobin
Alt2	Mutation of a glutamate to valine on alpha-globin chain of hemoglobin
Alt3	Mutation of a valine to glutamate on beta-globin chain of hemoglobin
Alt4	Mutation of a valine to glutamate on alpha-globin chain of hemoglobin

46	How many different amino acids are used in making proteins?
Alt1	11
Alt2	17
Alt3	20
Alt4	31

47	Which parts of amino acids are involved in peptide bonds?
Alt1	The carboxyl group on one amino acid and the side chain on the other
Alt2	The carboxyl group on both amino acids
Alt3	The amino group on one amino acid and the carboxyl group on the other
Alt4	The amino group on both amino acids

48	A simple harmonic oscillator may absorb energy
Alt1	At any time
Alt2	When the frequencies match exactly
Alt3	When the amplitudes are the same
Alt4	At no time

49	Unit of Pressure is
Alt1	Newton second
Alt2	Pascal
Alt3	Watt
Alt4	Newton per meter

50	What are audible sound waves ?
Alt1	Having frequencies less than 20 Hz
Alt2	Having frequencies between 20 Hz to 20000 Hz
Alt3	Having frequencies more than 20000 Hz

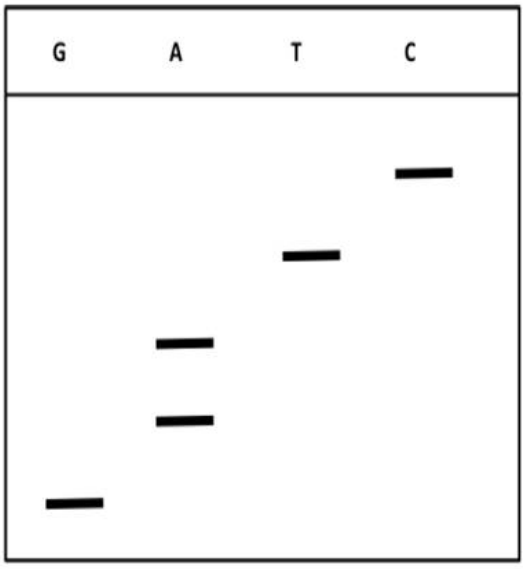
Alt4	Having frequencies less than 20 Hz and more than 20000 Hz

51	During the process of cell fractionation, rough ER forms small vesicles known as
Alt1	Glyoxysomes
Alt2	Microsomes
Alt3	Peroxisomes
Alt4	Dictyosomes

52	The Chromatographic technique used to purify mRNA
Alt1	Paper Chromatography
Alt2	Thin layer Chromatography
Alt3	Affinity Chromatography
Alt4	Gel filtration Chromatography

53	The gas other than CO2, responsible for green house effect
Alt1	CO
Alt2	SO2
Alt3	CH4
Alt4	N2

54	The dye used in the separation of protein by PAGE
Alt1	Bromophenol blue
Alt2	Crystal violet
Alt3	Malachite green
Alt4	Ethidium bromide

55	Half life period of a radioactive element is 5 years. Calculate the time taken for the conversion of 180 grams of the sample to 22.5 grams
	
Alt1	5 Years
Alt2	10 Years
Alt3	15 Years

Alt4	2.5 Years

56	1 Angstrom is equal to
Alt1	0.1 Nanometre
Alt2	0.01 Nanometre
Alt3	0.001 Nanometre
Alt4	10 Nanometre

57	Melting temperature of DNA is the temperature at which
Alt1	10% of the DNA is denatured
Alt2	50% of the DNA is denatured
Alt3	90% of the DNA is denatured
Alt4	100% of the DNA is denatured

58	The two components of a Lichen association
Alt1	Fungus and bryophyte
Alt2	Fungus and Algae
Alt3	Algae and bryophyte
Alt4	Algae and Bacteria

59	A double stranded DNA molecule with 6390 base pairs long will have the following number of turns
Alt1	6390
Alt2	639
Alt3	63.9
Alt4	6.39

60	The mode of action of Chloramphenicol in bacteria is to inhibit
Alt1	Cell wall synthesis
Alt2	DNA synthesis
Alt3	RNA synthesis
Alt4	Protein synthesis

61	DNA of a bacterium is not cleaved by its own restriction enzymes because the recognition DNA sequences are
Alt1	Deleted
Alt2	Bound by inhibitory proteins
Alt3	Methylated
Alt4	Nor accessible to restriction enzymes

62	PCR technique was developed by
Alt1	Peter Mitchell
Alt2	Robert Koach
Alt3	Mc Clintock
Alt4	Kary Mullis

63	The initiation codon AUG codes for

Alt1	Alanine
Alt2	Valine
Alt3	Methionine
Alt4	Tryptophan

64	The first mammal successfully cloned from an adult cell
Alt1	Dog
Alt2	Cat
Alt3	Sheep
Alt4	Buffalo

65	The first working draft of Human genome was published in the year
Alt1	2000
Alt2	2001
Alt3	2003
Alt4	2004

66	Full form of URL in computer language
Alt1	Uniform Resource Link
Alt2	Unified Resource Link
Alt3	Uniform Resource Locator
Alt4	Uniform Registered Link

67	In which stage of the cell cycle “Synapsis” occurs
Alt1	Leptotene
Alt2	Zygotene
Alt3	Pachytene
Alt4	Diplotene

68	How many different amino acids could be encoded by nucleic acids containing four different nucleotides, if four nucleotides coded for one amino acid
Alt1	4
Alt2	16
Alt3	64
Alt4	256

69	According to Francis Crick Wobble Hypothesis, the Wobble position is
Alt1	First position of the codon
Alt2	Second position of the codon
Alt3	Third position of the codon
Alt4	Not exist in the codon

70	Baculovirus vectors are used to transfer genes into
Alt1	Mammalian cells
Alt2	Plant cells
Alt3	Insect cells
Alt4	Bacterial cells

71	Which of the following is true about a double stranded DNA genome which contain 32% adenine
Alt1	The genome contain 16% guanine
Alt2	The genome contain 32% guanine
Alt3	The genome contain 18% guanine
Alt4	The genome contain 64% guanine

72	The first DNA-genome sequenced
Alt1	Haemophilus influenzae
Alt2	Phage Φ-X174
Alt3	Yeast chromosome 3
Alt4	Arabidopsis thaliana

73	The programme used to translate the submitted nucleotide sequence into amino acid sequence and compares the latter with a protein database
Alt1	BLASTx
Alt2	BLASTn
Alt3	tBLASTn
Alt4	tBLASTx

74	A bag contains 4 red, 5 green and 7 yellow balls. If 2 balls are picked simultaneously in a random manner from the bag, the probability of both being green is:
Alt1	1/16
Alt2	1/8
Alt3	1/12
Alt4	5/16

75	A student sequenced a DNA using Sanger‟s method and obtained the following autoradiogram. The sequence of DNA is:
Alt1	5’ CTTAG 3’
Alt2	5’ GAATC 3’
Alt3	5’ CTAAG 3’
Alt4	5’ AATTG 3’

76	When ΔH, ΔS and ΔG (at low temperature) are positive, the reaction is
Alt1	Spontaneous at high temperature
Alt2	Nonspontaneous at high temperature
Alt3	Spontaneous at low temperature
Alt4	Nonspontaneous at low temperature

77	The urea cycle occurs in the:
Alt1	Mitochondrion and cytoplasm
Alt2	Mitochondrion and lysosome
Alt3	Golgi complex
Alt4	Peroxisome

78	The entropy is greatest high in:

Alt1	Ice
Alt2	Water vapor
Alt3	Liquid water at 37˚C
Alt4	Liquid water at 0 ˚C

79	T cell maturation site is:
Alt1	Spleen
Alt2	Thymus
Alt3	Bone marrow
Alt4	Appendix

80	Wobble hypothesis was proposed by
Alt1	Watson
Alt2	Holley
Alt3	Crick
Alt4	Dayhoff

81	The process by which introns are removed:
Alt1	Transition
Alt2	Translation
Alt3	Transcription
Alt4	Splicing

82	Which of the following is a protein sequence databases?
Alt1	DDBJ
Alt2	GenBank
Alt3	UniProt
Alt4	EMBL

83	Which are the most stable component of a protein structure?
Alt1	β-sheets
Alt2	α-helix
Alt3	Turn
Alt4	310-helix

84	The computational methodology that tries to find the best matching between two molecules, a protein and a ligand is called:
Alt1	Molecular matching
Alt2	Molecular fitting
Alt3	Molecular modelling
Alt4	Molecular Docking

85	A compound that has desirable properties to become a drug
Alt1	Lead molecule
Alt2	Fit compound
Alt3	Small molecule
Alt4	Receptor

86	NCBI stands for?
Alt1	National Center for Bioinformatics Information
Alt2	National Center for Biological Information
Alt3	National Center for Biotechnology Information
Alt4	Both B and C

87	The SI unit of moment is
Alt1	N m
Alt2	N/m2
Alt3	N/m
Alt4	m/s2

88	Which of the following is antigen-presenting cell?
Alt1	Helper T cell
Alt2	Plasma cells
Alt3	Macrophage
Alt4	Dendritic cells

89	BLAST program is used for:
Alt1	Protein sequencing
Alt2	DNA barcoding
Alt3	Similar sequence search
Alt4	DNA sequencing

90	First sequenced cereal crop is
Alt1	Wheat
Alt2	Barley
Alt3	Oats
Alt4	Rice

91	How many number of ATP generated in fermentation process?
Alt1	36
Alt2	38
Alt3	2
Alt4	8

92	Genes related through descent from a common ancestral gene are called
Alt1	Orthologous
Alt2	Homologous
Alt3	Heterologous
Alt4	Paralogous

93	The first metabolic intermediate that is common to the aerobic metabolism of glucose and fatty acids is
Alt1	Acetyl CoA
Alt2	aceto-acetyl CoA

Alt3	Pyruvate
Alt4	Pyruvate

94	Which one of the following modifications targets a protein for degradation?
Alt1	Fernesylation
Alt2	Ubiquitination
Alt3	Sumoylation
Alt4	Palmitoylation

95	Process of formation of ATP from ADP during photosynthesis is referred to as
Alt1	Photophosphorylation
Alt2	Photorespiration
Alt3	Phosphorylation
Alt4	Oxidative phosphorylation

96	Binding of a transcription factor to DNA requires
Alt1	ATP
Alt2	A specific DNA sequence
Alt3	A favorable transcription factor concentration
Alt4	The RNA polymerase

97	Which one of the following is best to represent the central dogma?
Alt1	Sequence-Structure-Function
Alt2	DNA-RNA-Proteins
Alt3	Motifs-domains-Superfamilies
Alt4	Data-Databanks-Data mining tools

98	A mass of 19 kg moves at 7 m/s. Its momentum is
Alt1	25 kg m/s2
Alt2	133 N s
Alt3	129 kg m/s2
Alt4	29 N s

99	Which of the following data structure can't store the non-homogeneous data elements?
Alt1	Pointers
Alt2	Stacks
Alt3	Arrays
Alt4	Objects

100	Highest turnover number of an enzymatic reaction so far known is exhibited by
Alt1	Aspartate transcarbamylase
Alt2	ATPase
Alt3	Lysozyme
Alt4	Carbonic anhydrase