KRP MATRIC HIGHER SECONDARY SCHOOL SANKARI WEST

CHAPTER WISE ONE MARKS TEST - 5 12th Standard Date: 12-Feb-23 Biology Reg.No. : CH: 5. MOLECULAR GENETICS Time: 03:00:00 Hrs Total Marks: 180 ONE MARKS $155 \times 1 = 155$ 1) Hershey and Chase experiment with bacteriophage showed that (a) Protein gets into the bacterial cells (b) DNA is the genetic material (c) DNA contains radioactive sulphur (d) Viruses undergo transformation 2) DNA and RNA are similar with respect to (a) Thymine as a nitrogen base (b) A single-stranded helix shape (c) Nucleotide containing sugars, nitrogen bases and phosphates (d) The same sequence of nucleotides for the amino acid phenyl alanine 3) A mRNA molecule is produced by (a) Replication (b) Transcription (c) Duplication (d) Translation 4) The total number of nitrogenous bases in human genome is estimated to be about (a) 3.5 million (b) 35000 (c) 35 million (d) 3.1 billion 5) E. coli cell grown on ¹⁵N medium are transferred to ¹⁴N medium and allowed to grow for two generations. DNA extracted from these cells is ultracentrifuged in a cesium chloride density gradient. What density distribution of DNA would you expect in this experiment? (a) One high and one low density band (b) One intermediate density band. (c) One high and one intermediate density band. (d) One low and one intermediate density band 6) What is the basis for the difference in the synthesis of the leading and lagging strand of DNA molecules? (a) Origin of replication occurs only at the 5' end of the molecules (b) DNA ligase works only in the 3' → 5' direction (c) DNA polymerase can join new nucleotides only to the 3' end of the growing stand. (d) Helicases and single-strand binding proteins that work at the 5' end 7) Which of the following is the correct sequence of event with reference to the central dogma? (a) Transcription, Translation, Replication (b) Transcription, Replication, Translation (c) Duplication, Translation, Tran (d) Replication, Transcription, Translation 8) Which of the following statements about DNA replication is not correct? (a) Unwinding of DNA molecule occurs as hydrogen bonds break. (b) Replication occurs as each base is paired with another exactly like it (c) Process is known as semi conservative replication because one old strand is conserved in the new molecule. (d) Complementary base pairs are held together with hydrogen bonds 9) Which of the following statements is not true about DNA replication in eukaryotes? (a) Replication begins at a single origin of replication. (b) Replication is bidirectional from the origins. (c) Replication occurs at about 1 million base pairs per minute (d) There are numerous different bacterial chromosomes, with replication ocurring in each at the same time.

11) Meselson and Stahl's experiment proved

10) The first codon to be deciphered was _____ which codes for __

(a) AAA, proline (b) GGG, alanine (c) UUU, Phenylalanine (d) TTT, arginine

(a) Transduction (b) Transformation (c) DNA is the genetic material (d) Semi-conservative nature of DNA replication

(a)	Protein that suppresses gene expression (b) Protein that accelerates gene expression
(c)	Cluster of structural genes with related function (d) Gene that switched other genes on or off
13) \	When lactose is present in the culture medium:
(a)	Transcription of lac y, lac z, lac a genes occurs. (b) Repressor is unable to bind to the operator.
(c)	Repressor is able to bind to the operator. (d) Both (a) and (b) are correct.
14) 7	The term gene was coined by
(a)	Mendel (b) Lyon (c) Johannsen (d) Hershey
15) 7	The classical concept of a gene was given by
(a)	Mendel (b) Sutton (c) Johannsen (d) Hofmeister
16) (One gene one enzyme hypothesis was proposed by Beadle and Tatum based on
(a)	Yeast (b) Drosophila (c) E. coli (d) Neurospora
17) (Chromosomes were first observed by
(a)	Miescher (b) Hofmeister (c) Avery (d) Griffith
18) 7	The term nucleic acid was coined by
(a)	Miescher (b) Hofmeister (c) Altman (d) Mcleod
19) (Griffith's experiments proved that
(a)	RNA is involved in protein synthesis (b) Bacteria undergoes asexual reproduction (c) DNA is the genetic material
(d)	DNA is made of two strands
20) ٦	The experiment conducted by Griffith was based on
(a)	Transduction (b) Replication (c) Transformation (d) Conjucation
21) ŀ	Human Genome was sequenced in
(a)	1979 (b) 2015 (c) 1989 (d) 2001
22) _	used radioactive labelled molecules to prove that DNA is the genetic material.
(a)	Hershey and Chase (b) Wilkins and Franklin (c) Griffith (d) Mcleod and Avery
23) (One difference between deoxyribose and Ribose is due to
(a)	One Oxygen atom more in Ribose (b) Two Oxygen atoms less in Deoxyribose (c) Two Carbon atoms less in Ribose
(d)	Four Carbon atoms more in Ribose
24) _	is unique for DNA.
(a)	Adenine (b) Uracil (c) Guanine (d) Thymine
25) _	demonstrated that RNA is the genetic material in RNA containing viruses.
(a)	Avery (b) Conrat and Singer (c) Griffith (d) Watson and Crick
26) 1	The concept of RNA world was independently proposed by
(a)	Orgel, Brick and Carl woese (b) Brick, Griffith and Crick (c) Wilkins and Franklin (d) Walter Gilbert
27) ٦	The distance between two consecutive base pairs in DNA is
(a)	3.4 nm (b) 0.34 nm (c) 34.0nm (d) 31x10 ⁻⁹
28) 1	The term refers to DNA of Prokaryotes.
(a)	Nuclein (b) Ribozyme (c) Genophore (d) Nucleosome
29) _	proposed a model for the nucleosome.
(a)	Dupraw (b) Messelson (c) Kornberg (d) Griffith
30) A	A nucleosome has histone protein molecules.
(a)	6 (b) 8 (c) 10 (d) 24

31) Messelson and Stahl
(a) proved that RNA is the genetic material (b) proved that protein synthesis is dependent on DNA
(c) proved the semi conservative mode of DNA replication. (d) discovered enzymes involved in replication
32) Replication errors are corrected by repair enzymes such a
(a) Polymerases (b) Kornberg enzyme (c) helicases (d) Nucleases
33) The Okazaki segments are joined by
(a) DNA polymerase (b) RNA polymerase (c) DNA ligase (d) Endonuclease
34) The enzyme polynucleotide phosphorylase is named after
(a) Francis crick (b) Severo Ochoa (c) Marshall Nirenby (d) Kornby
35) The "non-sense' codons refer to.
(a) UAA UUU UGA (b) UUU ACU UAC (c) UAG UGA UAA (d) UAG UAA UUU
36) DNA finger printing technique was developed by
(a) Frederick Sanger (b) Alex Jeffrey (c) Hershey (d) Rosalind Franklin
37) In genetic code there are possible triplets.
(a) 62 (b) 61 (c) 68 (d) 64
38) The codon codes for phenylalanine
(a) UAA (b) UUU (c) UCU (d) UAC
39) The codon has dual function.
(a) UAA (b) AUG (c) UGA (d) UUU
40) An example of point mutation is
(a) Thalassemia (b) Diabetes (c) Turner syndrome (d) sickle cell anaemia
41) Wobble hypothesis
(a) proves that many tRNAs are. needed to transport specific amino acids (b) proves that the bases in tRNA need not match with mRNA
(c) helps in economic usage of tRNA (d) proves that one tRNA can carry many amino acids
42) The term adapter molecule refers to
(a) mRNA (b) DNA (c) rRNA (d) tRNA
43) There are no tRNA, for codons.
(a) AUG (b) GUC (c) UAA (d) AGA
44) Human genome is approximately said to have base
(a) 3×10^8 bp (b) 3.4×10^9 bp (c) 3.2×10^7 bp (d) 3×10^9 bp
45) DNA sequencers were developed by
(a) Frederick Serger (b) Watson (c) Messelson (d) Kornberg
46) In human beings chromosome has one height gene density.
(a) 18 (b) 20 (c) 19 (d) 22
47) Chromosome has 231 genes only.
(a) X (b) 19 (c) Y (d) 22
48) The association of histone H1 with a nudeosome indicates
(a) Transcription is occurring (b) DNA replication is occurring (c) The DNA is condensed into chromatin fiber
(d) The DNA double helix is exposed
49) Which of the following is not required for any of the techniques of DNA finger printing available at present?
(a) Zinc finger analysis (b) Restriction enzymes (c) DNA-DNA hybridization (d) polymerase chain reaction

(a) codes for proteins needs in cell cycle
(b) shows high degree of polymorphism in population and also the same degree of polymorphism in an individual, which is heritable from parents
to children
(c) Does not code for protein and is same in all members of the population. (d) Codes for enzymes needed for DNA replication.
51) The diagram shows an important concept in the genetic implication of DNA. Fill in the blanks A.to C. A B C
DNA — mRNA — protein— proposed by
(a) A - trancscription, B-replication, C- James Watson (b) A - trancscription, B-trancscriptioii, C-Erwin
(c) A - transcription, B - translation, C - Francis Crick (d) A- transscription, B- extension, C-Rosalind Frankin
52) Select the two statements out of the four (I -IV) given below about lac operon,
i. Glucose or galactose may bind with the repressor and inactive it. ii. In the absence of lactose, the repressor binds with the operator region
iii. The z-gene codes for permease.
iv. This was elucidated by Francois Jacob and Jacques Monod.
The correct statements are
(a) i and ii (b) ii and iii (c) ii and iv (d) i and ii
53) Which one of the following pairs of codons is correctly matched with their function or the single for the particular amino acid?
(a) GUU, GCU - Alanine (b) UAG, UGA - Stop codon (c) AUG, ACG - start/methionine (d) UUA, UCA - Leucine
54) The Okazaki fragments in DNA chain growth
(a) Result in transcription (b) Polymerise in the 3' to 5' direction and forms replication fork
(c) Prove semi-conservative nature of DNA replication (d) Polymerises in the 5' to 3' direction and explain 3'to 5' DNA replication
55) During translation initiation in prokaryotes, a GTP molecules is needed in
(a) association of 30 s, mRNA with formyl met tRNA (b) association of 50s subunit of ribosome with initiation complex
(c) formation of formyl met tRNA (d) binding of 30 s subunit of ribosome with mRNA
56) Reverse transcriptase is
(a) RNA dependent RNA polymerase (b) DNA dependent RNA polymerase (c) DNA dependent DNA polymerase
(d) RNA dependent DNA polymerase
57) Escherichia coli fully labeled with N14 medium. The two strands of DNA molecules of the first generation bacteria have
(a) Different density and do not resemble parent DNA (b) Different density but resemble parent DNA
(c) Same density and resemble parent DNA (d) Same density but do not resemble parents DNA
58) Whose experiment finally provided convincing evidence that DNA is the genetic material?
(a) Griffith experiment (b) Avery, Macleod and McCarty's experiment (c) Hershey-Chase experiment (d) Urey-Miller's experiment
59) In Hershey - Chase experiment, the DNA of T ₂ phase was made radioactive by using
(a) 32p (b) 35 _S (c) 35p (d) 32 _S
60) A nucleoside is composed of
(a) Sugar and Phosphate (b) Nitrogen base and Phosphate (c) Sugar and Nitrogen base (d) Sugar, Phosphate and Nitrogenous base
61) Identify the incorrect statement
(a) a base is a substance that accepts H+ ion (b) Both DNA and RNA have four bases (c) Purines have single carbon-nitrogen ring
(d) Thymine is unique for DNA
62) Watson and Crick proposed their double helical DNA model based on the X-ray diffraction analysis of
(a) Erwin Chargaff (b) Meselson and Stahl (c) Wilkins and Franklin (d) Griffith
63) If the length of E. coli DNA is 1.36 mm, the number of base pairs is
(a) 0.36×10^6 m (b) 4×10^6 m (c) 0.34×10^{-9} mm (d) 4×10^{-9} m

50) Satellite DNA is important because it

64) Identify the proper sequence in the organization of eukaryotic chromosome.
(a) Nucleosome - Solenoid - Chromatid (b) Chromatid - Nucleosome - Solenoid (c) Solenoid - chromatin - DNA
(d) Nucleosome - solenoid - genophore
65) Assertion (A): Genophore is noticed in prokaryotes. Reason (R): Bacteria possess circular DNA without chromatin organisation.
(a) Both A and R are correct (b) A is correct R is incorrect (c) R explains A (d) A is incorrect R is correct
66) Assertion (A): Heterochromatin is transcriptionally active. Reason (R): Tightly packed chromatin which stains dark
(a) Both A and R are correct (b) A is correct R is incorrect (c) R explains A (d) A is incorrect R is correct
67) Assertion (A): Semi-conservative model was proposed by Hershey and Chase. Reason (R): The daughter DNA contains only new strands.
(a) Both A and R are incorrect (b) A is correct R is incorrect (c) R explains A (d) A is incorrect R is correct
68) Replication of DNA occurs at phase of cell cycle.
(a) M (b) S (c) G ₁ (d) G ₂
69) Semi-conservative model of replication was proved by
(a) Hershey and Chase (b) Griffith (c) Meselson and Stahl (d) Macleod and McCarty
70) How many types of DNA polymerases does a eukaryotic cell possess?
(a) two (b) three (c) four (d) five
71) Identify the incorrect statement
(a) Replication occurs at ori - site of DNA (b) Deoxy nucleotide triphosphate acts as a substrate
(c) Unwinding of DNA strand is carried out by topoisomerase (d) DNA polymerase catalyses the polymerization at 3'-OH
72) Which is NOT a part of transcription unit?
(a) Promoter (b) Operator (c) Structural gene (d) Terminator
73) The RNA polymerase of prokaryotes binds with factor to initiate polymerization.
(a) rho (b) theta (c) sigma (d) psi
74) Precursor mRNA $\stackrel{A}{\rightarrow}$ hnRNA
(a) Capping (b) Tailing (c) Splicing (d) Transcribing
75) Which of the following feature is absent in prokaryotes?
(a) Prokaryotes possess three major types of RNAs (b) Structural genes are polycistronic
(c) Initiation process of transcription requires 'P' factor (d) Split gene feature
76) Which of the following sequence has completely translated? (i) AGA, UUU, UGU, AGU, UAG (ii) AUG, UUU, AGA, UAC, UAA (iii) AAA, UUU, UUG, UGU, UGA (iv) AUG, AAU, AAC, UAU, UAG
(a) i and ii (b) ii only (c) i and iii (d) ii and iv
77) Capping of mRNA occurs using
(a) Poly A residues (b) Methyl guanosine triphosphate (c) Deoxy ribonucleotide triphosphate (d) Ribonucleotide triphosphate
78) One of the aspect is not a feature of genetic code?
(a) Specific (b) Degenerate (c) Universal (d) Ambiguous
79) Which of the triplet codon is not a code of proline?
(i) CCU (ii) CAU (iii) CCG (iv) CAA
(a) i only (b) ii and iv (c) iii only (d) all the above

(a) Operons (b) Introns (c) Exons (d) Cistron
81) Which of the following mRNA yields 6 amino acids after translation?
(a) UCU UAU AGU CGA UGC AGU UGA AAA UUU (b) UGA AGA UAG GAG CAU CCC UAC UAU GAU
(c) GUC UGC UGG GCU GAU UAA AGG AGC AUU (d) AUG UAC CAU UGC UGA UGC AGG AGC CCG
82) The transcription termination factor associated with RNA polymerase in prokaryotes is
(a) θ (b) σ (c) ρ (d) Σ
83) In a DNA double strand, if guanine is of 30%, what will be the percentage of thymine?
(a) 100% (b) 20% (c) 10% (d) 70%
84) Identify the triplet pairs that code for Tyrosine
(a) UUU, UUC (b) UAU, UAU (c) UGC, UGU (d) CAU, CAC
85) AUG code is for
(a) Arginine (b) Tyrosine (c) Tryptophan (d) Methionine
86) The sequence of bases in coding strand of DNA is GAGTTAGCAGGC, then the sequence of codons in primary transcript is
(a) CUCAUACGCCCG (b) CUCAAUCGUCCG (c) UCAGAUCUGCGC (d) UUCAAUCGUGCG
87) The promoter region of eukaryote is
(a) TATAA (b) AUGUT (c) UUUGA (d) AAAAU
88) In sickle cell anaemia, the codon of eta - globin gene is modified
(a) Eighth (b) Seventh (c) Sixth (d) Nineth
89) Pick out the incorrect statement
(a) tRNA acts as an adapter molecule (b) Stop codons do not have tRNA's (c) Addition of amino acid leads to hydrolysis of tRNA
(d) tRNA has four major loops
90) Which of the following antibiotic inhibits the interaction between tRNA and mRNA?
(a) Neomycin (b) Streptomycin (c) Tetracycline (d) Chloramphenicol
91) Repressor protein of Lac operon binds to of operon.
(a) Promoter region (b) Operator region (c) terminator region (d) inducer region
92) Lac Z gene codes for
(a) Permease (b) transacetylase (c) β -galactosidase (d) Aminoacyl transferase
93) How many structural genes are located in lac operon of E.Coli?
(a) 4 (b) 3 (c) 2 (d) 1
94) SNP stands for
(a) Single nucleotide Polymorphism (b) Single Nucleoside Polypeptide (c) Single nucleotide Polymorphism
(d) Single nucleotide polymer
95) Which one of the following is wrongly matched?
(a) Transcription - Copying information from DNA to RNA (b) Translation - Decoding information from mRNA to protein
(c) Replication - Making of DNA copies (d) Splicing - Joining of exons with introns
96) experiment proved that DNA is the genetic material
(a) Greger meutal (b) William Joghnson (c) GriFFiith's (d) Altman
97) Each nucleotide sub unit is composed of parts
(a) Three (b) Two (c) Four (d) Five
98) The term "RNA World" First used by year of

80) Coding sequences found in split genes are called _____

(a) Rosalind Franklin, 1985 (b) James Watson 1987 (c) Walter Gilbert 1986 (d) Francis Crick 1985
99) In DNA Polymerase is the main enzyme involved in DNS replication.
(a) Polymerase I (b) Polymerase III (c) Polymerase II (d) Polymerase I, III
100) In bacteria a transcription and translation can be
(a) single (b) coupled (c) Both A & B (d) None of this
101) The scientists involved in discovery of DNA as chemical basis of heredity were
(a) Hershey and Chase (b) Griffith and Avery (c) Avery, Mac Leod and MC Carty (d) Watson and Crick
102) One turn of DNA possesses
(a) One base pair (b) Two base pair (c) Five base pair (d) Ten base pair
103) Number of codons in the genetic triplet code is
(a) 4 (b) 16 (c) 32 (d) 64
104) Initiation codons feir protein synthesis are
(a) UUU and GGG (b) AAU and UAA (c) AUG and GUA (d) GUG and AUG
105) The process of multiplication of DNA from DNA is known as
(a) Replication (b) Duplication (c) Transcription (d) Translation
106) The area of unwinding and separation of DNA strands during replication is called
(a) Origin (b) Initiation point (c) Primer (d) duplication point
107) Topoisomerase is involved in
(a) producing RNA Primer (b) joining DNA segments (c) producing nick in DNA (d) separation of DNA strands
108) In DNA replication, the primer is
(a) small deoxyribonucleotide polymer (b) small ribonucleotide polymer (c) helix destabilizing protein
(d) enzyme taking part in joining nucleotides to their complementary template bases
109) DNA strand is synthesized in the direction
(a) $5' o 3'$ (b) $3' o 5'$ (c) $1' o 4'$ (d) $6' o 1'$
110) Okazaki segments are
(a) small segments of RNA (b) small peptides (c) small DNA segments
(d) small DNA formed over DNA template running in $3' o 5'$ direction
111) Okazaki fragments give rise to
(a) master strand (b) sense strand (c) lagging strand (d) leading strand
112) Leading strand during DNA replication is formed
(a) continuously (b) in short segments (c) first (d) ahead of replication
113) Nonsense codons take part in
(a) helping protein synthesis (b) termination gene message for polypeptide synthesis (c) initiating gene message for polypeptide synthesis
(d) synthesis of nonprotein amino acids
114) DNA act as a template for synthesis of
(a) DNA (b) RNA (c) both DNA and RNA (d) Protein
115) Code transfer for synthesis of polypeptide involves
(a) DNA, IRNA, TRNA, mRNA (b) mRNA, IRNA, rRNA and DNA (c) IRNA, DNA, mRNA and rRNA (d) DNA, mRNA, IRNA and amino acids
116) In polypeptidg synthesis amino acids are brought over ribosome-mRNA complex by
(a) rRNA (b) tRNA (c) DNA (d) nucleotides
117) tRNA attaches amino acid at its

(a) 3' end (b) 5' end (c) Anticodon (d) loop	
118) Blender experiment to prove DNA as genetic material was performed by	
(a) Hershey and Chase (b) Messelson and Stahl (c) Watson and Crick (d) Rosalind Franklin	
119) A mutant strain of Neurospora which fails to grow on a minimal medium unless supplemented with a nutrients is called	
(a) auxotroph (b) autotroph (c) heterotroph (d) prototroph	
120) The terms triplet code and genetic code were coined by	
(a) Watson and Crick (b) Nirenberg (c) Gamow (d) Conrat	
121) Beadle and Tatum produced mutant strain of Neurospora by	
(a) X-rays (b) U.V. rays (c) beta rays (d) gamma rays	
122) A gene that takes part in the synthesis of polypeptide is	
(a) structural gene (b) regulator gene (c) operator gene (d) promoter gene	
123) components of an operon are	
(a) operator, promoter and regulator genes (b) regulator, promoter, operator and structural genes	
(c) operator, regulator and structural genes (d) regulator, promoter and structirral genes	
124) Regulated unit of genetic material is termed as	
(a) operon (b) regulator gene (c) operator gene (d) okazaki segment	
125) Part of operon producing repressor is known as	
(a) repressor gene (b) operator gene (c) regulator gene (d) promoter gene	
126) UAA, UAG and UGA condons are designated as	
(a) Stops con (b) Non-sense condons (c) Both (a) and (b) (d) initiator consons	
127) Before coming out of nucleus, in RNA is added (A) as capping and (B) as tailing	
(a) A - ATP (b) A. Methyl guanosine triphosphate (c) A. diadenylate guanosine diphosphate (d) A. ethyl methane triphosphate	
(a) A - ATP (b) A. Methyl guanosine triphosphate (c) A. diadenylate guanosine diphosphate (d) A. ethyl methane triphosphate B. Adenylate.residues B. Methyl guanosine residues	
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(a)	fixed (b) ambiguous (c) degenerative (d) nonwobbly
137)	Which is correctly matched?
(a)	Frederick Griffith discovered transformation (b) Linus Pauling- isolated DNA for first time
	Francis Crick -proposed one gene-one polypeptide hypothesis (d) George Beadle-proposed concept of inborn errors
138)	Matching DNA sequence of criminal with suspect is known as
	DNA fingerprinting (b) DNA amplification (c) gene mapping (d) DNA resolution
139)	Okazaki segments are formed during
(a)	transduction (b) transcription (c) replication (d) translation
140)	Who proposed central dogma?
(a)	Watson and Crick (b) Beadle and Tatum (c) Klug (d) Crick
141)	Which of the following is not required for any of the techniques of DNA fingerprinting available at present?
(a)	Zinc finger analysis (b) Restriction enzymes (c) DNA-DNA hybridization (d) polymerase chain reaction
142)	Which of the following nitrogenous bases are common for both RNA and DNA?
. ,	C, G, A (b) G, A, U (c) T, A, C (d) U, A, C
	If there are 999 bases in an RNA that codes for a protein with 333 amino acids and the base at position 901 substituted, how many codons will be ered?
(a)	11 (b) 33 (c) 333 (d) 1
144)	A well-known technique to amplify a small portion of DNA is termed as
(a)	PCR (b) VNTR (c) UTR (d) EST
145)	mRNA is in fact
(a)	Unprocessed rRNA (b) Processed hnRNA (c) Unprocessed hnRNA (d) Processed mRNA
146)	The cluster of genes with related function is called
(a)	Cistron (b) Operon (c) Muton (d) Recon
147)	Which of the chromosome has higher gene density?
(a)	Chromosome 20 (b) Chromosome 19 (c) Chromosome 13 (d) Chromosome Y
148)	Number of genes located in chromosome Y is
(a)	2968 (b) 213 (c) 2869 (d) 231
149)	DNA finger printing technique was developed by
(a)	Jacob and Monod (b) Alec Jeffreys (c) Frederick Sanger
150)	In DNA fingerprinting, separation of DNA fragments is done by
(a)	Centrifugation (b) Electrophoresis (c) X-ray diffraction (d) denaturation
	Five E.coli cells with ¹⁵ N - dsDna are incubated in medium containing ¹⁴ N nucleotide. After 60 minutes, how many E.coli cells will have DNA totally e from ¹⁵ N
(a)	60 cells (b) 80 cells (c) 20 cells (d) 30 cells
	In an E.coli strian i gene gets mutated and its product can not bind the inducer molecule. If growth medium is provided with lactose, what will be the ecome
(a)	z,y,a genes will not be translated (b) RNA polymerase will bind the promoter region (c) only z gene will get transcribed
(d)	z,y,a genes will be transcribed
153)	If the length of a DNA molecule is 1.1 metres, what will be the approximate number of base pairs
(a)	3.3 x 106 bp (b) 6.6 x 106 bp (c) 3.3 x 109 bp (d) 6.6 x 109 bp
	Read the following statements and choose the set of correct statements: Euchromatin is loosely packed chromatin

(c) Histone octomer is wrapped by negatively charged DNA in nucleosome (d) A typical nucleosome contains 400 bp of DNA helix. < /div >
(a) (b), (e) only (b) (a), (c), (e) only (c) (b), (d), (e) only (d) (a), (c), (d) only
155) The process of translation of mRNA to proteins begins as soon as : < /div >
(a) Both the subunits join together to bind with mRNA (b) The tRNA is activated and the large subunit of ribosome encounter mRNA
(c) The small subunit of ribosome encounters mRNA (d) The large subunit of riosome encounter mRNA
17 x 1 = 17
156) Ribosomes are composed of two subunits; the smaller subunit of a ribosome has a binding site for and the larger subunit has two binding
sites for two
mRNA, tRNA
157) Kornberg enzyme is called as
DNA polymerase I
158) Retroviruses possess as genetic material.
RNA
159) Goldberg - Hogness box of eukaryotes is equivalent to of prokaryotes.
Pribnow box
160) Okazaki fragments are joined by the enzyme during DNA replication.
DNA ligase
161) number of codons, codes for cystine
Тwo
162) Lac operon model was proposed by
Jacob and Monod
163) Approximate count of base pair in human genome is
3 x 10 ⁹ b _p
164) Specific sequences of mRNA that are not translated are
UnTranslated Regions (UTR)
165) is the monomer of DNA.
Nucleotide
166) The term 'gene' was coined by
Wilhelm Johannsen
167) The term 'RNA world' was first used by
Walter Gilbert
168) Kornberg enzyme is called as
DNA polymerase I
169) The discontinuously synthesized fragments of lagging strand are called
Okazaki fragments
170) Retroviruses possess as genetic material.
RNA
171) Automated DNA sequences are developed by
Frederick Sanger

(b) Heterochromatin is transcriptionally active

172) Non - coding or intervening DNA sequence is called _____

173) PCR

DNA amplification

174) SNPs

Snips

175) Lac Operon

Polycistronic gene

176) VNTR

Genetic markers

177) Initiation complex

GTP

178) Start Codon

AUG

179) Termination

UAA

180) tRNA

Peptidyl transferase

181) Ochoa

Polynucleotide phosphorylase

182) tRNA

adapter molecule

183) AUG

Methionine

184) Sickle cell anemia

Point mutation

185) Semi-conservative model

Meselson and Stahl

186) Transformation

Griffith

187) Clover leaf model

R. Holley

188) Lac operon model

Jacob and Monod

189) DNA Polymerase

Synthesize DNA

190) Aminoacyl synthetase

Charging of tRNA

191) DNA helicase

Unwinds DNA strand

192) DNA ligase

193) AUG	
Methionine	
194) UGA	
Tyrosine	
195) UUU	
Phenylalanine	
196) GGG	
Glycine	2 x 1 = 2
197) (i) Kornberg proved semi conservative model of DNA replication.	271 2
(ii) The Chromatin that is tightly packed is called heterochromatin.	
(iii) Catalytic RNA is called ribozyme.	
(iv) The coding strand is displaced during transcription.	
(a) i only (b) ii and iv	
(c) ii, iii and iv	
(d) iii and iv only	
(c) ii, iii and iv	
198) (i) The RNA polymerase. opens up the DNA for replication	
(ii) There more than one tRNA for most amino acids.	
(iii) The split gene feature of eukaryote genes is absent in prokaryotes.	
(iv) The X chromosome is the smallest chromosome.	
(a) i and iv only	
(b) i and ii	
(c) ii and iii only (d) ii and iii	
(c) ii and iii only	
	39 x 2 = 78
199) Miescher isolated a substance from cell nuclei and called it	
Answer: nuclein	
200)proved that DNA is the genetic material.	
Answer: Griffith	
201) The presence of functional group gives DNA and RNA, the property of an acid.	
Answer: Phosphate	
202) The adjacent nucleotides of DNA are held together by bonds.	
Answer: Phosphodiester	
203) Base pair rule was proposed by	
Answer: Erwin Chargaff	
204) Conrat and singer showed that RNA is the genetic material in	
Answer: Tobacco Mosaic Virus	
205) The term 'RNA World'was first used by	
Answer: Walter Gilbert	
206) Catalytic RNA is called	

Joins DNA fragments

Answer: Ribozyme

207) The length of the DNA double fields is
Answer: 2.2m
208) In eukaryote, chromatin is formed by a series of repeating units called
Answer: nucleosomes
209) proposed a model for the nucleosome.
Answer: Kornberg
210) Experimental proof for DNA replication was given by
Answer: Messeison and stah
211) DNA Polymerase 1 is also known asenzyme.
Answer: Kornberg
212) Unwinding of DNA strands is brought about by the enzyme
Answer: DNA helicase
213) The lagging strand of DNA has discontinuous fragments called
Answer: Okazaki fragments
214) DNA gyrase refers to the enzyme
Answer: topoisomerase
215) The central dogma in molecular biology was proposed by
Answer: Francis Crick
216) Reverse transcription is seen in
Answer: HIV (Human Immunodeficiency Virus)
217) The AT rich regions in promoters of eukaryotes are called
Answer: TATA box or Goldberg Hogeness box
218) The AT rich region in promotes of prokaryotes are called
Answer: Pribnow box
219) proposed the classical model of lac operon.
Answer: Jacob and Monod
220) The non-coding sequences of structural genes are called
Answer: introns
221) The structural genes have interrupted coding sequences called
Answer: exons
222) The introns are removed by a process called
Answer: Splicing
223) Ochoa's enzyme refers to
Answer: Polynudtide phosphorylase
224) The number of termination codons are
Answer: three
225) The codon UUU on mRNA codes for
Answer: Phenylalanine
226) The molecule is made up of four polynucleotide chains
Answer: haemoglobin

227) The third base of the tRNA anticodon is called
Answer: Wobble base
228) is called the adapter molecule.
Answer: tRNA
229) The two dimensional clover leaf model of tRNA was proposed by
Answer: Robert Holley
230) 'S' in Ribosomes is expressed as
Answer: Svedberg unit
231) The formation of peptide bonds during protein synthesis is catalysed by
Answer: peptidyl transferase
232) The clusters of gene with related functions are called
Answer: operons
233) HGP is associated with development of a new area in biology called
Answer: bioinformatics
234) is the largest known human gene.
Answer: dystrophin
235) The study of genes and their functions is called
Answer: genomics
236) DNA finger printing involves identifying some specific differences in some specific regions in DNA called
Answer: repetitive DNA
237) DNA can be separated into bands of different sizes by
Answer: electrophoresis
12 x 1 = 1
238) RNA viruses can mutate faster.
Answer: Both DNA and RNA are able to mutate RNA being unstable, mutates at a faster rate. Thus viruses having RNA genome with shorter life span can mutate and evolve faster.
239) In bacteria, transcription and translation occur simultaneously.
Answer: (I) In bacteria, the mRNA does not require any processing to become active. (II) Transcription and translation take place simultaneously since there is no separation of cytosol and nucleus in bacteria due to the absence of nuclear membrane.
240) Abnormality in haemoglobin leading to sickle cell anaemia is considered to be point mutation.
Answer: The disease sickle cell anaemia is due to production of abnormal haemoglobin. This is due to single base substitution at the 6th codon of beta globin gene in β chain of haemoglobin.
241) tRNA is called adapter module.
Answer: The transfer RNA, (tRNA) molecule of a cell acts as a vehicle that picks up the amino acids scattered through the cytoplasm and also reads specific codes of mRNA molecules. Hence it is, called an adapter molecule. This term was postulated by Francis Crick.
242) There are no tRNA for stop codons.

Answer: The stop codons serve to indicate the termination of protein synthesis. Therefore when any one of the stop codons (UAA, UAG, UGA) appear on the mRNA. It will signal the action of GTP dependent release factor which cleaves the polypeptide chain from the terminal tRNA. The tRNA

243) Human Genome Project can aim at a 'Perfect Race'.

will further be released from ribosomes.

Answer: Human Genome Project has identified all the genes in Human DNA and can create lot of possibilities for new gene therapies. Attempts will be made to "breed out" certain genes from the human population with the aim to create a "Perfect race" of humans. This can have lot of disastrous consequences.

244) VNTR can serve as genetic markers.

Answer: In DNA short repetitive nucleotide sequences are specific for a person. These nucleotide sequences are called as Variable and Number Tandem repeats (VNTR). The VNTRs of two persons generally show variations and are useful as genetic markers. This is applicable to DNA finger printing technique.

245) PCR is an important part of DNA finger printing technique.

Answer: pCR stands for Polymerase chain reaction. In marty situations, there is only a small amount of DNA available for DNA finger printing. If needed many copies of the DNA can be produced by a method of DNA amplification called as PCR.

246) AUG has dual functions.

Answer: The codon AUG acts as a initiator codon and also codes for the amino acid methionine. Thus it is said to have dual functions.

247) HGT could have played a major role in. evolution of life on earth.

Answer: In eukaryotic genes, the expressed sequences are called exons and intervening non-coding sequences are called introns. Introns or mobile DNA sequence can splice themselves out of, as well as into specific 'target sites' acting like mobile transposon-like elements (mediating transfer of genes between organisms). Such transfer is called as HGT-Horizontal Gene Transfer. This could have occurred between different lineages of cells and played a major role in the evolution of life on earth.

248) The genetic code is said to be Non-ambiguous.

Answer: i) Non-ambiguous code means that one codon will code for one amino acid.

ii) There are specific codons for each amino acid. AUG codes for methionine.

249) The triplet codon is described as 'degenerate code'.

Answer: A degenerate code means that more than one triplet codon could code for a specific amino acid. For example: codons GUU, GUC, GUA and GUG code for valine.

KRP MATRIC HIGHER SECONDARY SCHOOL SANKARI WEST

CHAPTER WISE ONE MARKS TEST - 6 12th Standard Date: 12-Feb-23 Biology Reg.No.: **CH:6. EVOLUTION** Time: 03:00:00 Hrs Total Marks: 150 Choose the correct answer 140 x 1 = 140 1) Who published the book "Origin of species by Natural Selection" in 1859? (a) Charles Darwin (b) Lamarck (c) Weismann (d) Hugo de Vries 2) The first life on earth originated (a) in air (b) on land (c) in water (d) on mountain 3) Which of the following was the contribution of Hugo de Vries? (a) Theory of mutation (b) Theory of natural Selection (c) Theory of inheritance of acquired characters (d) Germplasm theory 4) The wings of birds and butterflies is an example of (c) divergent evolution (a) Adaptive radiation (b) convergent evolution 5) The phenomenon of "Industrial Melanism" demonstrates (a) Natural selection (b) induced mutation (c) reproductive isolation (d) geographical isolation 6) Darwin's finches are an excellent example of (a) connecting links (b) seasonal migration (c) adaptive radiation (d) parasitism 7) The age of fossils can be determined by (a) electron microscope (b) weighing the fossils (c) carbon dating (d) analysis of bones 8) Who proposed the Germplasm theory? (a) Darwin (b) August Weismann (c) Lamarck (d) Alfred Wallace 9) Fossils are generally found in (a) igneous rocks (b) metamorphic rocks (c) volcanic rocks (d) sedimentary rocks 10) Evolutionary history of an organism is called (a) ancestry (b) ontogeny (c) phylogeny (d) paleontology 11) The golden age of reptiles was (a) Mesozoic era (b) Cenozoic era (c) Paleozoic era 12) Which period was called "Age of fishes"? (b) Triassic (c) Devonian (a) Permian (d) Ordovician 13) Modern man belongs to which period? (a) Quaternary (b) Cretaceous (c) Silurian 14) According to Darwin, the organic evolution is due to (a) Intraspecific competition (b) Interspecific competition (c) Competition within closely related species. (d) Reduced feeding efficiency in one species due to the presence of interfering species. 15) The Neanderthal man had the brain capacity of

(a) 650 - 800cc(b) 1200cc(c) 900cc(d) 1400cc16) A population will not exist in Hardy- Weinberg equilibrium if

(a) Individuals mate selectively (b) There are no mutations (c) There is no migration (d) The population is large
17) The solar system is estimated to beyears old.
(a) 4.5 billion years (b) 4 billion years (c) 4.5 trillion years (d) 6.4 billion years
18) Carbon dioxide in the primitive earth is said to have been formed from
(a) Methane & Oxygen (b) Methane & Ammonia (c) Carbon and Oxygen (d) Carbon & Methane
19) The term biogenesis was coined by
(a) Thomas Huxley (b) Henry Bastian (c) Haldane (d) Weinberg
20) was not a part of theory of chemical evolution.
(a) Sea served as chemical laboratory (b) Oxygen was not present (c) Physical forces such as UV, lightning contributed to changes.
(d) Solar energy was not available
21) Origin of fishes occurred in period
(a) Devonian (b) Silurian (c) Cambrian (d) Permian
22) is called age of fishes
(a) Silurian (b) Ordovician (c) Devonian (d) Cambrian
23) is called age of Invertebrates
(a) Cambrian (b) Devonian (c) Pennsylvanian (d) Mississippian
24) era is called Golden age of reptiles.
(a) Paleozoic (b) Mesozoic (c) Precambrian (d) Cenozoic
25) Origin of egg laying mammal a occurred in period.
(a) Jurassic (b) Carboniferous (c) Triassic (d) Cretaceous
26) Human evolution occured in era
(a) Paleozoic (b) Cenozoic (c) Mesozoic (d) Precambrian
27) era is called age of mammals
(a) Precambrian (b) Permian (c) Cenozoic (d) Paleozoic
28) Choose the correct sequence
(a) Ordovician, Triassic, Permian, Cretaceous (b) Devonian, Permian, Cretaceous, Cambrian (c) Devonian, Triassic, Cretaceous, Ordovician
(d) Silurian, Devonian, Permian, Triassic
29) Emergence of modern birds occurred in period.
(a) Devonian (b) Silurian (c) Jurassic (d) Cretaceous
30) Origin of first man like apes occured in epoch
(a) Oligocene (b) Miocene (c) Pliocene (d) Paleocene
31) are not examples of homologous organs.
(a) Thorn and tendrils (b) Forelimb of animals and wing of bat (c) wing of bat and bird (d) Flippers of penguins and dolphins
32) is not a vestigial organ.
(a) Nictitating membrane (b) Wisdom teeth (c) Ear muscles (d) Wing ofInsect
33) Presence of tail in human baby is an example for
(a) Vestigial organ (b) Atavism (c) Homologous organ (d) Analogous organ
34) Lamarck theory was disproved by
(a) Weinberg (b) August Weismann (c) Haeckel (d) Wallace
35) was a Neo Darwinist
(a) Mendel (b) Osborn (c) Packard (d) Spencer

36) Human exploitation of forests, oceans etc leads to
(a) Chromosomal mutations (b) Artificial Selection (c) Gene recombination (d) Natural selection
37) Centrifugal selection refers to
(a) Directional selection (b) Disruptive selection (c) Stabilising selection (d) Kin selection
38) Founder's effect is related to
(a) Genetic drift (b) Gene mutation (c) Extinction (d) Artificial selection
39) Australian ape Man refers to
(a) Ramapithecus (b) Australopithecus (c) Dryopithecus (d) Sivapithecus
40) Was the first human like being
(a) Homo habilis (b) Homo erectus (c) Homo sapiens (d) Homo erectus
41) Homo sapiens or modern human arose in
(a) Australia (b) Africa (c) Germany (d) Eurasia
42) Morphological isolation is also known as
(a) Physiological isolation (b) Cytological isolation (c) Mechanical isolation (d) Seasonal isolation
43) Mule is an example of
(a) Hybrid inviability (b) Hybrid sterility (c) Hybrid breakdown (d) Hybridization
44) Which of the following is not a chromosomal mutation.
(a) Deletion (b) Translation (c) Point mutation (d) Addition
45) Chose the Hardy Weinberg equation
(a) $(p+q)^2 = p2 + 2pq + q^2$ (b) $(p^2 + q^2) = p^2 + 2pq + q^2$ (c) $(p+q) = p^2 + 4pq + q^2$ (d) $2(p+q) = 2p + 4pq + 2q$
46) The factor which affects Hardly Weinberg equation
(a) Gene flow (b) Random mating (c) No mutation (d) none of the above
47) Homo erectus did not display this feature.
(a) Flat skull (b) Large brain capacity (c) Vegetarian (d) Thicker than modern man
48) According to big bang theory, the primitive earth had all the following. Except:
(a) Ammonia (b) Methane (c) Oxygen (d) Hydrogen and water vapour
49) Who coined the term prebiotic soup?
(a) Haldane (b) Darwin (c) Thomas Huxley (d) Henry Bastian
50) Which statement is wrong regarding the Coacervates?
(a) Coavervates are the first pre-cells which gradually transferred into living cells.
(b) Haldane suggested that the organic compounds could have undergone a serious of reactions leading to more complex molecular.
(c) These are large colloidal particulars that precipitate out in aqueous medium.
(d) They were able to absorb and assimitate organic compounds from the environment.
51) All the following provided the energy for chemical reaction in the primitive earth Except:
(a) Rain (b) Lightning (c) UV radiations (d) volcanic activity
52) In this type of selection no speciation takes place but the phenotype stability is maintained within the population over generation.
(a) Stabilizing selection (b) Directional selection (c) Disruptive selection (d) Adaptive radiation
53) This is a waveform of selection but leads to formation of two or more different species
(a) Adaptive radiation (b) Directional selection (c) Centipetal selection (d) Stabilizing selection
54) This does not produce any genetic variations but once such variations occur, it favours some genetic changes while rejecting others.
(a) Genetic recombination (b) Chromosomal mutation (c) Reproductive isolation (d) Natural selection

55) This can be explained clearly through industrial mechanism.
(a) Mutation (b) Natural selection (c) Struggle for existence (d) Prodigality of production.
56) Darwin's finches in Galapagos islands and Australian Marsupials are the example of
(a) Industrial mechanism (b) Reproductive isolation (c) Genetic recombination (d) Adaptive recombination
57) According to Neo Darwinism change in the frequency of genes in population arise due to all Except.
(a) Natural selection (b) Mutation (c) Struggle for existence (d) Variation
58) Who believed that gradual accumulation of all variations are the causative factor in the origin of new species
(a) Sewell Wright (b) Lamarck and Darwin (c) Huxley (d) Simpson and Haeckel
59) Biogenetic law was proposed by
(a) Angust Weismann (b) Ernst von Haeckel (c) Wallace (d) Heinvich
60) This type of isolation is due to the differences in their external genitalia that is seen in two different species.
(a) Morphological isolation (b) Physiological isolation (c) Seasonal isolation (d) Ethological isolation
61) Which one of the following brings about evidence for convergent evolution?
(a) Homologous structure (b) Analogous structure (c) Vestigial organs (d) Atavistic organs
62) All the following are vestigial organs in human. Except:
(a) Coccyx (b) Law muscles (c) Tail in human boy (d) Nictitating membrane of the eye
63) All the following are examples of ontogeny recapitulates phylogeny. Except:
(a) Tubular heart (b) Appearance of pharyngeal gill slits (c) Yolk sac (d) Appearance of tail in human body
64) Molecule which is used to study the evolution of respiratory pathway is.
(a) DNA (b) RNA (c) r RNA (d) cytochrome C
65) Rearrange the six periods of the Eva Paleozoic from the oldest to the youngest in correct order.
(a) Devonian
(b) Ordovician
(c) Cambrian (d) Putman
(e) Carboniferous
(f) Silurian
(a) Cambrian → Ordovician → Silurian → Devonian → Carboniferous → Permian
(b) Ordovician \rightarrow Devonian \rightarrow Silyrian \rightarrow Permian \rightarrow Carboniferous \rightarrow Cambrian
(c) Silurian \rightarrow Carboniferous \rightarrow Devonian \rightarrow Cambrian \rightarrow Ordovician \rightarrow Silurian
(d) Devonian \rightarrow Ordovician \rightarrow Cambrian \rightarrow Carboniferous \rightarrow Silurian \rightarrow Permian
66) Abiotically produce molecules can spontaneously self assemble into droplets into droplets that enclose a watery solution and maintain a chemical environment different from their surrounding is called.
(a) Liposomes (b) Coacervates (c) protobionts (d) protoviruses
67) In this type of fossilization, the molecules of the dead body is replaced for molecules by minerals and the original substance being lost through disintegration.
(a) Actual remains (b) petrifaction (c) natural moulds (d) cast formation
68) Hardy Weinberg's assumption includes all. Except:
(a) No mutation (b) No natural selection (c) Random mating (d) Very small population
69) Theory of chemical evolution was proposed by
(a) Stanley (b) Urey (c) Lamarck (d) Wiessmann
70) The period which witnessed decline of mammals and beginning of human social life
(a) Triassiac (b) Quaternary (c) Tertiary (d) Devonian

71) propounded Biogenetic law.
(a) Urey (b) Haldane (c) Von Haeckel (d) Dobzhansky
72) Apple maggot flies are example of
(a) Hybrid breakdown (b) Physiological isolation (c) Allopatric speciation (d) Species Extinction
73) Failure in fertilization due to differences in chromosome numbers
(a) Physiological isolation (b) Chromosomal mutation (c) Mechanical isolation (d) Cytological isolation
74) Heritable changes in or more characteristics of a population of from one generation to other is called evolution.
(a) Individuals (b) species (c) genus (d) organisms
75) Living organisms originated from non-living materials and occurred through stepwise chemical and molecular evolution is called and this started in the theory of
(a) Coaceatvates, biogenesis (b) Abiogenesis, spontaneous generation. (c) Pre-existing life, chemical evolution.
(d) Pre-cell, special creation.
76) Peripatus is the connection link between Annelida and
(a) Arthropoda (b) Platyhelminthes (c) Mollusca (d) Echinodermata
77) Due to change in the diet containing less cellulose, inhuman become functionless and is reduced to a Vermiform appendix.
(a) Small intensive (b) large intensive (c) Rectum (d) caecum
78) Native offered positive selection pressure to the coloured moths in the industrial mechanism.
(a) White (b) black (c) red (d) red and black
79) The wings of a bird and of an insect are
(a) homologous structure and represent convergent evolution (b) homologous structure and represent divergent evolution
(c) analogous structure and represent convergent evolution (d) analogous structure and represent divergent evolution
80) Which one of the following statement is correct?
(a) stem cells are specialized cells (b) there is no evidence of the existence of gills during embryogenesis of mammals
(c) all plant and animal cells are totipotent (d) Ontogeny repeats phylogeny
81) In Hardy - Weinberg equation, the frequency of heterozygous individual is represented by
(a) P ₂ (b) 2pq (c) pq (d) q ²
82) The correct order in Era is
(a) Palaeozoic Archaeozoic Coenozoic (b) Archaeozoic Palaeozoic Proterozoic (c) Palaeozoic Mesozoic Coenozoic (d) Mesozoic Archaeozoic Proterozoic
83) The most apparent change during the evolutionary history of Homo sapiens is raced in
(a) loss of body hair (b) walking upright (c) shortening of jaws (d) remarkable increase in the brain size.
84) The process by which organisms with different evolutionary history evolve similar phenotypic adaptations in response to a common environmental challenge is called
(a) Natural selection (b) Convergent evolution (c) Non-random evolution (d) Adaptive radiation Human health and diseases
85) Identify the incorrect statement in concern with Neanderthals
(a) Neanderthal human were found in Germany (b) They possessed flat cranium (c) They used to bury their dead
(d) Their brain size is of 650 - 800 cc
86) Which of the following statement does not satisfy Hardy Weinberg principle?
(a) A population undergoing random mating (b) Small sized population (c) Population where there is no mutation or gene flow
(d) Absence of natural selection
87) Placental mammals develop during

(a) Eocene (b) Oligocene (c) Pliocene (d) Paleocene

88) Anatomical structures that have similar functions but not similar structures are called
(a) Homologous structures (b) Vestigial structures (c) Analogus structures (d) Generalized structures
89) Who propounded the theory of recapitulation?
(a) Ernst Von Haeckel (b) Charles Darwin (c) Thomas Huxley (d) Oparin
90) Mammal in human male is
(a) Atavistic organ (b) Rudimentary Organ (c) Vestigial organ (d) Homologous structure
91) Which of the following is/are not examples of analogous structure
(a) Wings of Birds and Bats (b) Wings of Birds and Insects
(c) Thorn of Bougainvillea and Tendril of Cucurbita
(d) Flippers of Penguins and Dolphins
(a) a, b, c (b) a and c (c) band d (d) All the above
92) Identify the mismatched pairs
(a) Thorn of Bougainvillea and Tenrdril of cucurbita - Analogy (b) Forelimbs of whale and cat - Analogy
(c) Octopus eye & Mammalian eye - Homology (d) Root of sweet potato & stem of potato - Homology
93) Witnesses for evolution are found in
(a) Rocks (b) Ocean beds (c) Fossils (d) Desert
94) Assertion (A): Oparin used the term coacervases
Reason (R): Coacervates are colloidal particles in aqueous environment
(a) Both A and R are incorrect (b) Both A and R are correct. (c) Both A and R are correct. R explains A. (d) A is correct R is incorrect
95) According to the theory of spontaneous generation, life originated from
(a) Cosmic particles (b) Non-living materials (c) Coacervates (d) Sea
96) Assertion (A): Hardy - Weinberg principle states that allelic frequency of a population remain constant Reason (R): Constancy is maintained through natural selection and mutation
(a) A is true R is false (b) A is false R is true (c) Both A and R are true (d) R explains A
97) Calculate the allelic frequency of Aa, if 'A' allelic has frequency of 0.3 and 'a' allele has frequency of 0.7
(a) 0.67 (b) 0.42 (c) 0.36 (d) 0.59
98) Genetic drift leads to
(a) Mutation (b) Bottle neck effect (c) Immigration (d) Isolation
99) Atavism refers to
(a) Inheritance oftriat by mother (b) Inheritance of trial by father (c) Criss-cross inheritance
(d) Inheritance of characters not shown by parents
100) Sudden appearance of vestigial organs in highly evolved organisms is called
(a) Vestigial organs (b) Connecting link (c) Atavistic organs (d) Adaptive radiation
101) Sudden appearance of vestigial organs in highly evolved organisms is called
(a) Vestigial organs (b) Connecting link (c) Atavistic organs (d) Adaptive radiation
102) The origin of life is now supposed to be due to
(a) spontaneous generation (b) will of god (c) effect of sunshine on mud (d) none of these
103) There is no life on moon due to absence of
(a) silicates (b) air (c) nitrogen (d) water
104) Originally the primitive atmosphere was reducing because
(a) oxygen was abundant (b) carbon was active (c) hydrogen was abundant (d) nitrogen was active

105) Prebiotic soup was formed in

(a)	river (b) ocean (c) pond (d) air
106)	Which one of the following is the important event in origin of life?
(a)	
107)	The prebiotic soup of Haldane was the
(a)	coacervates of oparin (b) first organism of horowitz (c) both (d) none
108)	Monera includes cell with
(a)	nucleus (b) nucleolus (c) no nucleus (d) no nucleolus
109)	The primitive reducing atmosphere was changed into oxidizing atmosphere because of
(a)	chemosynthesis (b) photosynthesis (c) both (d) none
110)	Life originates about
(a)	three billion years ago (b) one billion years ago (c) six billion years ago (d) nine billion years ago
111)	For origin of life most important condition is the a presence of
(a)	water (b) carbon (c) oxygen (d) nitrogen
112)	Stanley miller synthesized
(a)	amino acids (b) proteins (c) nucleoproteins (d) polypeptides
113)	The synthesis of nucleoproteins provided the first sign of
(a)	evolution (b) life (c) speciation (d) none
114)	On the basis if Miller's experiment, it can be said that
(a)	organic compounds can be synthesized in the laboratory (b) life originated in the form of amino acids
	organic compounds have carbon, hydrogen and oxygen (d) complex organic compounds were first formed on primitive earth
	The prokaryotic genetic system contains
	Either DNA or histones (b) DNA and histones (c) Only DNA and no histones (d) Only histones and no DNA
116)	The mode of respiration of earliest organism was
	anaerobic (b) aerobic (c) both (d) none
	Bacteria do not have a true nucleus because
	nuclear membrane is absent (b) lack of histones (c) histones do not make a complex with DNA (d) none of these
	Which one is vestigial organ in human?
	ear pinnae (b) adrenal glands (c) vermiform appendix (d) sebaceous glands
	Which one of the following sets represent analogous organs?
	hind legs of horse, grasshopper and bat (b) wings of butterfly, housefly and bat (c) mandibles of cockroach, mosquito and honeybee wings of butterfly, bat and bird
	Homologous structures are
	dissimilar in origin, similar in function (b) dissimilar in origin and function both (c) similar in origin but similar or dissimilar in function
	similar in origin and dissimilar in function
121)	Analogous structures are those which are
(a)	normally non-functional (b) functionally similar (c) structurally as well as functionally (d) none of these
122)	One of the following sets represent homologous organs
(a)	wings of bats, bird and butterflies (b) hindlegs of dog, duck and kangaroo (c) tail of rat, peacock and scorpion
(d)	sting of honey bee, mosquito and housefly
123)	One of the following is not likely to disappear in future generation of man
(a)	ear ossicles (b) wisdom teeth (c) body hair (d) ear muscles

124) A vestigial organ of man is	
(a) ileum (b) tooth (c) ear pinnae (d) ear muscle	
125) Which one of the following sets represent all vestigial organs in man?	
(a) coccyx, vermiform appendix, ear (b) coccyx, body hair and ear muscles (c) body hair ear musc	scles, atlas vertebra
(d) wisdom teeth, coccyx, Patella	
126) The wings of bats, locust and pigeon are the example of	
(a) homologous organs (b) analogous organs (c) vestigial organs (d) exoskeleton	
127) Which of the following is not a ozone depleting substance?	
(a) Methyl chloroform (b) Carbon tetrachloride (c) Hydrochloro fluorocarbons (d) Nitrous oxi	ide
128) Match the following and find the correct answer	
i) Tertiary period (A) Age of fishes	
ii) Jurassic period (B) dominance of invertebrates iii) Devonian period (C) Mammals and birds	
iv) Ordovician period (D) Golden age of reptiles	
(a) (i) - B, (ii) - C, (iii) - D (iv) - A (b) (i) - C, (iii) - D, (iii) - B (iv) - A (c) (i) - D, (iii) - C, (iiii) - B (iv) - A (c)	d) (i) - C, (iil - D, (iii) - A (iv) - B
129) Which is the correct order of human evolution?	(i) 0, (iii b, (iii) A (iv) b
	Maniaida Allamananiana
(a) Hominid → Homohabilis → Homoerectus → Homosapiens (b) Homohabilis → Homoerectus	
(c) Homoerectus \rightarrow Homohabilis \rightarrow Hominids \rightarrow Homosapiens (d) Homohabilis \rightarrow Hominids \rightarrow 130) There is no life on moon because it has no	nomoerectus → nomosapiens
(a) nitrogen (b) sulphur (c) oxygen (d) water	
131) Miller synthesized amino acids from a mixture of	
	rogen cyanide, hydrogen and oxygen
(d) hydrogen, nitrogen and water vapours	
132) English scientist who proposed the mechanism of origin of life and was settled in india was	
(a) Oparin (b) Santapu (c) Pasteur (d) Haldane	
133) Russian scientist first to propose modern theory of origin of life	
(a) Oparin (b) Haldane (c) Miller (d) Bahadur	
134) Correct order is	
(a) palaeozoic $ o$ archaeozoic $ o$ coenozoic (b) archaeozoic $ o$ palaeozoic $ o$ proterozoic (c) p	palaeozoic $ o$ Mesozoic $ o$ coenozoic
(d) Mesozoic $ ightarrow$ archaeozoic $ ightarrow$ proterozoic	
135) Homologous organ are	
(a) dissimilar origin and dissimilar structure (b) dissimilar origin but similar function (c) similar or	origin with similar or dissimilar functions
(d) similar origin,with dissimilar function	
136) Golden age of dinosaurs / age of reptiles was	
(a) Mesozoic (b) Cenozoic (c) palaeozoic (d) psychozoic	
137) Fossil x is older than fossil y because	
(a) fossil x was found in deeper sedimentation (b) fossil y was found in deeper sedimentation	
(c) fossil x has homologous and analogous organs of y (d) fossil y has some vestigial organs	
138) Evolutionary convergence is development of	
(a) common set of characters in group of different ancestry (b) dissimilar characters in closely related	ted groups
(c) common set of characters in closely related groups (d) random mating	
139) The earliest fossil from the phylogeny of horse is	

(a) merychippus (b) mesohippus (c) eohippus (d) equus	
140) Identify the correct sequence from oldest to youngest	
$\textbf{(a)} \ \ Cambrian \to Permian \to Devonian \to Silurian \to Ordovician \qquad \textbf{(b)} \ \ Permian \to Silurian \to Devonian \to Ordovician \to Cambrian$	
$\textbf{(c)} \ \ Permian \to Devonian \to Silurian \to Cambrian \to Ordovician \qquad \textbf{(d)} \ \ \textbf{Cambrian} \to \textbf{Ordovician} \to \textbf{Silurian} \to \textbf{Devonian} \to \textbf{Permian}$	
	5 x 1 = 5
141) girdle and limb bones are vestigial in whales.	
Pelvic and hind	
142) Leaves of citrus and cladodes of Ruscus are organs.	
Analogous 143) Adaptations result from rather than by environmental factors.	
Gene mutation	
144) In the primeval earth, solar radiation, lightning and served as the energy source for reaction of organic synthesi	e
Aggregates, Decomposition	3.
145) The earliest evidence of life appears in the micro fossils of that appeared 3.3 to 3.5 billion years ago.	
Photosynthetic, Cyanobacteria	
Those symmetric	20 x 1 = 20
146) Sewall Wright	
Genetic drift	
147) Darwin's finches	
Adaptive radiation	
148) Haeckel	
Biogenetic law	
149) ALXI	
Mutation	
150) Coprolites	
Biological evolution	
151) Molecular clock	
DNA	
152) Miller	
Abiogenetic synthesis	
153) Coacervates	
Colloids	
154) Cambrian period	
Age of inventebrates	
155) Devoniar period	
Age of fishes	
156) Cenozoic era	
Age of mammals	
157) Mesozoic era	

Age of Reptiles
158) Biogenesis

Henry Bastin 159) Prebiotic soup Haldane 160) Coacervates Oparin 161) Abiogenesis **Thomas Huxley** 162) Homo sapiens 1300 - 1600 cc 163) Homo erectus 900 cc 164) Homo habilis 650 - 800 cc 165) Australopithecus 350 - 450 cc 5 x 1 = 5 166) (i) According to theory of chemical evolution 5 the primitive atmosphere was oxygen (ii) Protista was the ancestral forms of modern bacteria. (iii) Woolly mammoth which lived years ago was available in petrified remains. (iv) Four chambered heart is found in crocodiles. (a) i and iv (b) ii and iv (c) i and iii (d) iii and iv (d) iii and iv 167) (i) According to Lamarck nature brings in variations (ii) Absence of limbs in snakes is an example for Darwinism (iii) Presence of oversized antlers in Irish deer could not be explained by Darwin (iv) Micro evolution refers to change in allele frequencies in a population. (a) iii and iv (b) i and iv (c) ii and iii (d) iv (a) iii and iv 168) (a) In sympatric speciation, both new and ancestral species continue to inhabit the same geographical region. (b) Phenotypic plasticity in the ability of single genotype to produce more than one phenotype. (c) Mass extinction of animals happened due to the elevation of CO2 level. (d) Mass extinction is often referred to as K-T extinction. (c) Mass extinction of animals happened due to the elevation of CO₂ level. 169) Which one of the following is the objection to Darwinism I. He did not distinguish between somatic and geomina variations. II. He explains the survival of the fittest but not the arrival of the fittest. III. He did not explain the occurrence of Vestiqeal organs. IV. He failed to explain the mechanism of radiation. (a) i,iv (b) ii,iii,iv (c) i,iii,iv (d) i,ii,iii,iv

(d) i,ii,iii,iv

- 170) Allele frequencies in a population may change due to these all fundamental forces of evolution.
- I. Natural selection
- II. genetic drift
- III. Mutation
- IV. Gene flow
- (a) i,iv
- (b) ii,iii,iv
- (c) i,ii,iii,iv
- (d) i,iii,iv
- (c) i,ii,iii,iv

171) (A) Petrifaction Impression
(B) Actual remains Volcanic ash
(C) Tail in Baby Atavism
(D) Homologous Structures Flippers of Dolphin

- (a) A only
- (b) A and B
- (c) B and C
- (d) D only

Answer: (b) A and B

- (A) Lamarck Theory of use & disuse

 (B) Darwin Natural selection

 (C) Weismann-Giraffe

 (D) Huxley Biogenesis
- (a) A and D
- (b) B and C
- (c) C and D
- (d) C only

Answer: (c) C and D

- 173) (A) Vestigial organ Four chambered heart in reptiles
 (B) Analogous structure wings of birds
 (C) Homologous structure bones in the forelimbs veributes
 (D) Atavistic organ tail in human body
- (a) A only
- (b) B and C
- (c) C and D
- (d) C only

Answer: (a) A only

174) PERIOD/ EPOCH IMPORTANCE

,			
(A)	Jurassic	1	Golden aage reptiles
(B)	Pleistocene	-	Age of human beings
(C)	Holocene	1	Age of mammals
(D)	Mississipian	-	Age of Fishes

- (a) A only
- (b) B and C
- (c) C and D
- (d) C only

Answer: (d) C only

1	v	1	_	1

Answer: Archaeopteryx
176) Age of mammals
Answer: Cenozoic era
177) Method used to determine precise age of a fossil
Answer: Absolute dating
178) Imprints left by fossil animals or plants
Answer: Moulds
179) Sudden appearance of vestigial organs in highly enlarged organisms
Answer: Atavism
180) Book published by Lamarck
Answer: Philosophie zoologique
181) Plant in which De Vries caused out his experiments on mutation,
Answer: Oenothera Lamarckiana
182) Similarly in Darwin's finches and Australian Marsupials
Answer: Convergent evolution
183) The human form considered to be ancestors of modern Europeans
Answer: Cro - Magnon
184) Scientific name for modern human,
Answer: Homo sapieans
185) Which period is called "the age of reptiles"?
Answer: Mesozoic
186) Who proposed the biogenetic theory "ontogeny repeats phylogeny"?
Answer: Von Baer
187) Name the scientists who disapproved the theory of spontaneous generation of life?
Answer: Spallanzani, Reddi and pasteur

KRP MATRIC HIGHER SECONDARY SCHOOL SANKARI WEST

CHAPTER WISE ONE MARKS TEST - 7

Date: 12-Feb-23

12th Standard

Biology Reg.No. : CH:7. HUMAN HEALTH AND DISEASES Time: 03:00:00 Hrs Total Marks: 156 **CHOOSE THE CORRECT ANSWER** 156 x 1 = 156 1) A 30 year old woman has bleedy diarrhoea for the past 14 hours, which one of the following organisms is likely to cause this illness? (a) Streptococcus pyogens (b) Clostridium difficile (c) Shigella dysenteriae (d) Salmonella enteritidis 2) Exo-erythrocytic schizogony of Plasmodium takes place in _ (a) RBC (b) Leucocytes (c) Stomach (d) Liver 3) The sporozoites of Plasmodium vivax are formed from _ (a) Gametocytes (b) Sporoblasts (c) Oocysts (d) Spores 4) The Athlete's foot disease in human is caused by _ (a) Bacteria (b) Fungi (c) Virus (d) Protozoan 5) Amphetamines are stimulants of the CNS, whereas barbiturates are _ (a) CNS stimulant (b) both a and b (c) hallucinogenic (d) CNS depressants 6) Choose the correctly match pair. (a) Amphetamines - Stimulant (b) LSD - Narcotic (c) Heroin - Psychotropic (d) Benzodiazepine - Pain killer 7) Cirrhosis of liver is caused by chronic intake of _ (a) Opium (b) Alcohol (c) Tobacco (d) Cocaine 8) The sporozoite of the malarial parasite is present in _ (a) saliva of infected female Anopheles mosquito (b) RBC of human suffering from malaria. (c) Spleen of infected humans (d) Gut of female Anopheles mosquito 9) Paratope is an (a) Antibody binding site on variable regions (b) Antibody binding site on heavy regions (c) Antigen binding site on variable regions (d) Antigen binding site on heavy regions 10) Allergy involves (a) IgE (b) IgG (c) IgA (d) IgM 11) Spread of cancerous cells to distant sites is termed as (a) Metastasis (b) Oncogenes (c) Proto-oncogenes 12) AIDS virus has (a) Single stranded RNA (b) Double stranded RNA (c) Single stranded DNA (d) Double stranded DNA 13) B cells that produce and release large amounts of antibody are called (a) Memory cells (b) Basophils (c) Plasma cells (d) killer cells 14) _____is a non infective disease. (a) Cold (b) Arthritis (c) Chickenpox 15) Rigidity of the Jaw muscle is a symptom of (a) Typhoid (b) Kala azar (c) Tetanus (d) Chikungunya

The cite of infection for versinia nectic is

The site of infection for yersina pesus is
(a) Intestine (b) Lungs (c) Lymph nodes (d) Nervous system
17) Choose the symptom applicable for mumps
(a) Muscular stiffness (b) Enlargement of parotid gland (c) Flu like illness (d) Respiratory failure
18)is a pandemic disease
(a) Polio (b) Swine flu (c) Dysentery (d) Dengue fever
19)is a carrier for transmitting entamoeba
(a) House fly (b) Mosquito (c) Sand fly (d) Tsetse fly
20) Vector control research Centre is located in
(a) Chennai (b) Delhi (c) Puducherry (d) Hyderabad
21) Yellowish eyes is a symptom of
(a) Plague (b) Measles (c) Hepatitis (d) Sleeping sickness
22)is a dermotropic disease
(a) Influenza (b) Measles (c) Cold (d) Rabies
23)Can be confirmed by widal test.
(a) Tuberculisis (b) Cholera (c) Typhoid (d) Hepatitis
24)is not a symptom of Kala-azar
(a) Anemia (b) Fever (c) Spleen enlargement (d) Muscle spasms
25) Cycles of fever in malaria is caused during
(a) Production of gametes (b) Lysis of RBC (c) Release of sporozoites (d) Sporogony
26) Disease eradicated by immunization programmes in India
(a) Chicken pox (b) Small pox (c) Measle (d) Diphtheria
27) Identify the rat flea vector
(a) Xersinia (b) Tsetse fly (c) Xenopsylla cheopis (d) Musca
28)is a DNA virus
(a) Rubella (b) Varicella (c) Polio (d) Mumps
29)is a type of Ringworms
(a) Ascariasis (b) helminthiasis (c) Dandruf (d) Athlete's foot
30)can lead to nutritional deficiency in the infected person
(a) Amoebiasis (b) Pneumonig (c) Ascariasis (d) Tetanus
31)is a plant with hallucinogenic properties
(a) Atropa belladonna (b) Rauwolfia vomitoria (c) Jatropha curcas (d) Pongamia
32) Cystic fibrosis isin origin and it is adisease
(a) fungal, infectious (b) protozoan, Communicable (c) degenerative, pathogenic (d) genetic, non-communicable
33) Mode of infection of cholera is
(a) Droplet infection (b) through contaminated food and water (c) through wound infection (d) through wound infection
34) The pathogenic bacteria causing bubonic plague is
(a) yersinia pestis (b) Clostridium tetani (c) Shigella sp (d) Streptococcus pneumoniae
35) This part of our body is affected by viral infection in mumps.
(a) Liver (b) Salivary glands (c) Nervous system (d) Skin and blood
36) Find out the mismatched pair

(a)	(b)		(c)
VIRAL DISCASEAFFECTING ORGANS		SEAFFECTING ORGANS	VIRAL DISCASE AFFECTING ORGANS
Dermotropic Skin and subcutaneous tissues	Neurotropic	Central nervous system	Pneumotropic Brain and spinal cord
(d)			
VIRAL DISCASE AFFECTING ORGANS			
Viscerotropic blood and visceral organs			
37) For the following diseases, respiratory system	s the site of infe	ction,except	
(a) Dengue fever (b) Chicken pox (c) Com	mon cold (d)	Measles	
38) A persons show Enlargement of the parotid gla	nds. Identify the	disease.	
(a) Measles (b) Mumps (c) Viral hepatitis	(d) Chicken	oox	
39) Yellow fever and dengue fever are categorized			ans which got affected
(a) neurotropic disease (b) viscerotropic dise	ase (c) derm	otropic disease (d) pneu	imotropic disease
40) The incubation period of malaria isdays			
(a) 10 (b) 12 (c) 15 (d) 18			
41) Which statement is wrong regarding the malari	a?		
(a) In the human liver, the sporozoites undergo s	avual ficcion	(b) Erythropytos lyso and ro	lase the merozoites and haemozoin
		female gametes develop in	
(c) In the mosquito's gut, the ookinete is formed	(u) Iviale allu	remaie gametes develop in	the body of a mosquito.
42) The vector for filariasis is			
(a) Culex mosquito (b) Anopheles mosquito	(c) Aedes aeg	gypti (d) Tsetse fly	
43) This substance increases the blood pressure a	nd heart beat		
(a) LSD (b) nicotine (c) adrenaline and no	n - adrenaline	(d) Cannabis	
44) One after following statement is wrong. Find on I Bhang affects the cardiovascular system II Opium acts a depressent on the central nervous III Lysergic acid diethylamide distorts the wayone	system sees, hears and	feels	
IV Barbiturates slows down the activity of the fore	brain.		
(a) I II IV (b) II IV (c) all the above (d) r	one of the above		
45) Continuous consumption of alcohol affects			
(a) Heart (b) Kidney (c) liver (d) brain			
46) This is not a lifestyle disorder in man			
(a) Cancer (b) diabetes (c) cardiovascular	(h) esessible	lung disease	
(,, (,, (,,	discuse (a)	iding discuse	
47) The substance not present in tobacco is			
(a) nicotine (b) tar (c) Morphine (d) ca	arbon monoxide		
48) Find out the mismatched pair			
(a) (b)	(c)	(d)	
Group Drugs Group Drugs	Group	Drugs Group Drugs	
Depressant Tranquilizers Cannabis Morphine	Hallucinogens	LSD Stimulants Cocain	е
49)is not present in tobacco			
(a) LSD (b) Nicotine (c) Carbon monoxide	(d) both ban	d c	
50) Choose the correct sequence with regard to pla	. ,		
(i) Sporozoite	.c.moulum.		
(ii) Microgametocyte			

(a) i, iii, iv, ii **(b) i, iii, ii, iv** (c) i, iv, ii, iii (d) i, ii, iii, iv

51) The Duration of erythrocyte cycle for plasmodium ovale is	
(a) 75 hours (b) 36-48 hours (c) 32 hours (d) 48 hours	
52) Choose the symptom not seen in amoebiasis	
(a) Diarrhoea (b) Abdominal pain (c) Ulceration (d) Fever	
53)is not linked to malaria	
(a) Haemozoin (b) TNF-a (c) Phencyclidine (d) Interleuin	
54)is a genetic disease	
(a) Rickets (b) Cystic fibrosis (c) Tuberculosi (d) Candidiasis	
55) Pick out the disease which is caused by virus	
(a) Candidiasis (b) Ascariasis (c) Poliomyelitis (d) Dysentery	
56)test is done to confirm typhoid.	
(a) ELISA (b) Western blot (c) Widal test (d) Southern blot	
57) Identify the mismatched pair	
(a) Hepatitis - Liver (b) Poliomyelitis - Brain and spinal cord (c) Measles - Intestine (d)	d) Mumps - Salivary gland
58) Identify the wrong statement regarding polio disease.	
(a) Polio is caused by a RNA virus (b) One of the infection site of polio is intestine (c) Co	ulex mosquito acts as a vector for polio.
(d) Paralysis and respiratory failure are the symptoms.	
59) Yellow fever is a type of disease.	
(a) Neurotropic (b) Viscerotropic (c) Pneumotropic (d) Dermotropic	
60) Which one of the following pairs is wrong.	
(a) Amoebiasis - Home fly (b) African sleeping sickness - Tsetse flies (c) Kala-azar - Sar	nd fly (d) Malaria - female Anopheles mosquito
61) Schizogony of Plasmodium parasite in human liver cells returns in	
(a) sporozoites (b) merozoites (c) trophozoites (d) schizont	
62) Assertion (A): Plasmodium vivax is a digenic parasite Reason (R): The primary host of P. vivax is man.	
(a) Both (A) and (R) are true. (R) explains (A) (b) (A) is true (R) is false (c) Both (A) and	(R) are false (d) (A) is false (R) is true
63) Assertion (A): Dermatomycosis is a cutaneous infection. Reason (R): Fungus belongs to the order Trichophyton.	
(a) Both (A) and (R) are true. (R) explains (A) (b) (A) is true (R) is false (c) Both (A) and	(R) are false. (d) (A) is false (R) is true
64) Assertion (A): Spleen is a primary lymphoid organ Reason (R): Primary lymphoid organs trap antigen and destroy them.	
(a) Both (A) and (R) are true. (R) explains (A) (b) (A) is true (R) is false (c) Both (A) and ((R) are false (d) (A) is false (R) is true
65) Assertion (A): Paratope is the antigen-binding site. Reason (R): It is a part of antibody	
(a) Both (A) and (R) are true. (R) explains (A) (b) (A) is true (R) is false (c) Both (A) and	(R) are false (d) (A) is false (R) is true
66) Assertion (A): HIV is a DNA virus. Reason (R): HIV belongs to genus Lentivirus	
(a) Both (A) and (R) are true. (R) explains (A) (b) (A) is true (R) is false (c) Both (A) and (R) are false. (d) (A) is false (R) is true
67) Secretion of HCI in stomach is an example for	
(a) Anatomical barriers (b) Phagocytic barriers (c) Physiological barriers (d) Inflame	matory barriers
68) Identify the incorrect statement	

(a) Antibody Mediated Immunity was elicited by T cells. (b) It is a character of vertebrates only
(c) Immunoglobulins act against pathogens and kill them. (d) It is also called humoral immunity
69) Which of the following is not a feature of passive immunity?
(a) It is transient and less effective (b) Immunological memory is present (c) Immunity develops immediately
(d) Antibodies are obtained from outside
70) Which is not a granulocyte?
(a) Lymphocytes (b) Neutrophils (c) Basophils (d) Eosinophils
71) The L and H chains of immunoglobulin are joined by
(a) Hydrogen bonds (b) disulphide bonds (c) phosphodiester bonds (d) ionic bond
72) Identify the wrong statement.
(a) Vaccine provide passive acquired immunity (b) It is made from attenuated or killed microbes
(c) Vaccines teach our body how to defend from microbes (d) MMR is a fist generation vaccine
73) The enzyme attached to RNA of HIV is
(a) RNA polymerase (b) reverse transcriptase (c) primase (d) endonuclease
74) Infection of Ascariasis occur due to
(a) Sand fly (b) contaminated food (c) mosquito bite (d) stagnant water
75) Which of the following statement(s) is true regarding cancer cells?
(a) Neoplasm or tumor cells show uncontrolled growth (b) They are metastatic
(c) They lack contact inhibition
(d) They may be benign or malignant
(a) (a) only (b) (b) and (c) (c) (d) only (d) All the above
76) Study dealing with body's defence mechanism against disease is called
(a) Pathology (b) Immunology (c) Microbiology (d) Dermatology
77) AIDS is characterized by sharp reduction in number of
(a) helper T cells (b) killer T cells (c) superior T cells (d) B-cells
78) Plague and malaria are caused by and respectively.
(a) bacteria and virus (b) fungi and protozoa (c) bacteria and protozoan (d) fungi and bacteria
79) A pair of fungal disease
(a) Amoebiasis, Kala-azar (b) Candidiasis, Athlete's foot (c) Ascariasis, Filariasis (d) Poliomyelitis, Amoebiasis
80) Plant source of Heroin is
(a) Poppy plants (b) Cannabis plants (c) Datura species (d) Atropa species
81) The test that confirms HIV positive is
(a) Western blot (b) Northern blot (c) Southern blot (d) all the above
82) Bacillary dysentery is caused due to
(a) Salmonella (b) Shigella (c) Clostridium (d) Yersinia
83) Cocaine is a potent
(a) Sedative (b) Hallucinogen (c) pain reliever (d) neurotransmitter
84) Alkaloid found in tobacco is
(a) Atropine (b) cocaine (c) heroin (d) nicotine
85) is a chronic memory disorder due to alcohol misuse.
(a) Cushing's syndrome (b) Turners' syndrome (c) Klinefelters' syndrome (d) Korsakoff syndrome

86) The disease caused by Wuchereria bancrofti is
(a) Malaria (b) Filariasis (c) Kala-azar (d) Sleeping sickness
87) Which one of the following statements is not correct?
(a) Bursa of Fabricius is a primary lymphoid organ of birds (b) Blymphocytes mature in the bursa.
(c) Bursa of Fabricius brings cell mediated immunity (d) Bursa of Fabricius brings humoral immunity.
88) Cholera and leprosy are
(a) viral disease (b) fungal disease (c) bacterial disease (d) deficiency disease
89) Diphtheria affects
(a) brain (b) Skin (c) throat (d) kidney
90) Organisms which causes pertussis is
(a) virus (b) fungus (c) gram Positive bacillus (d) gram negative bacillus
91) Lakshadweep is a zone of india
(a) non-TB (b) non-hepatitis (c) not-rabies (d) none of these
92) Break bone fever is
(a) typhoid (b) viral encephalitis (c) kala-azar (d) dengue
93) Disease spreads by droplet infection is
(a) common cold (b) smallPox (c) measles (d) All of these
94) Diseases such as plague malaria, typhoid, etc. which are transmitted from person to person are
(a) congenital disease (b) metabolic disease (c) communicable disease (d) degenerative diseases
95) Entamoeba histolytica is a human parasite usually founded in
(a) intestine (b) liver (c) blood (d) mouth 96) The commonest cause of diarrhea in infants and children world over is
(a) adenovirus (b) clostridium (c) vibrio cholera (d) corynebacterium 97) Bursa of fabrica is lymphoid organ is
(a) Human (b) Birds (c) Cats (d) All of these
98) The primary lymphoid organ is
(a) Tonsils (b) Peyer's Patches (c) lymph nodes (d) thymus
99) Vaccines produced from inactivated organisms are called
(a) Attenuated vaccines (b) toxoids (c) combinations (d) killed vaccines
100) Which among the following is an example of allergy?
(a) Hives (b) Hay fever (c) Asthma (d) All of these
101) The condition caused due to release of large amount of histamine is
(a) anaphylactic shock (b) eczema (c) Pertussis (d) immune side effects
102) Example of autoimmune disease is
(a) Multiple sclerosis (b) Allergy (c) AIDS (d) Cancer
103) In the cell mediated immune response T-lymphocytes divide and secrete
(a) Antigens (b) plasmogens (c) collagens (d) cytokines
104) Plasma cells are
(a) the same as memory cells (b) formed from blood Plasma (c) B-cells that are actively secreting antibody
(d) hiactive T-cells carried in the plasma

105) Perspiration saliva and tears contain an enzyme lysozyme that kills $\,$

(a) Virus-infected cells (b) Protozoans (c) bacteria (d) viruses
106) Lysozyme kills bacteria by destroying their
(a) cell walls (b) mitochondrial enzymes (c) lipid bilayers (d) the machinery for DNA enzymes replication
107) White blood cells non-specific killers of microbes are
(a) B-cells (b) phagocytes (c) killer T-cells (d) helper T-cells
108) An antiviral substance produced in response to viral infection for restricting its multiplication is
(a) antigen (b) antivirion (c) interferon (d) virion
109) Which of the following would not be a participant in cell mediated immune responses?
(a) Helper T-cells (b) Macrophages (c) Cytokines (d) Plasma cells
110) Transfusing a person with blood plasma proteins from a person or animal that has been actively immunised against a specific antigen provides
(a) active immunity (b) passive immunity (c) auto immunity (d) anti immunity
111) Artificial immunity can be acquired from a
(a) Serious illness (b) vaccination (c) repeated exposure to the same microbe (d) treatment with penicillin
112) The regions of an antibody,that make it distinct from all other kinds of antibodies are its
(a) Variable (V) regions (b) Constant (C) regions (c) Mutated (M) regions (d) Biforcated (B) regions
113) The of the following cells engulf and digest other cells from your body?
(a) HelperT-cells (b) Supressor T-cells (c) B-cells (d) Macrophages
114) The term humour refers to
(a) bone marrow (b) plasma and lymph (c) all internal tissues (d) all subcutaneous tissue
115) The humoral immune system defends mostly against bacteria and viruses in the
(a) body fluids (b) digestive tract (c) internal organs (d) regions beneath the skin
116) The function of vaccine is the production of
(a) antigens (b) immune bodies (c) immune reactions (d) antibodies
117) Immunoglobulins (antibodies) are basically
(a) lipo proteins (b) phospholipids (c) glyco proteins (d) nucleo proteins
118) The basic shape of antibody resembles
(a) G (b) Q (c) Y (d) H
119) Inflammatory response in allergy is due to release of
(a) antibodies (b) antigens (c) histamine (d) all of these.
120) Among the non - infectious diseases, which is the majar cause for death?
(a) Heart attact (b) Stroke (c) Arthritis (d) cancer
121) Match the following and find the correct answer
(i) Choler (A) Mycobacterium
(ii) Typhoid (B) Vibrio (iii) Diphtheria (C) Yersinia
(iv) Bubonic plague (D) Corynebacterium
(a) (i) - B, (ii) - C, (iii) - D (iv) - A (b) (i) - B, (ii) - A, (iii) - D (iv) - C (c) (i) - C, (ii) - D, (iii) - A (iv) - B (d) (i) - D, (ii) - C, (iii) - B (iv) - A
122) Which one of the following is not true regarding antibiotics?
(a) Penicillin is a fungicidal antibiotics (b) Tetracycline is a broad spectrum antibiotics (c) Streptomycin is broad spectrum antibiotics
(d) Chloroteiracyciine is obtained from streptomyces aureofociens

123) Find out the incorrect Pair

(a) Neisseria gonorrhoeae - Affects urethra (b) Helpatitis B virus - Liver cirrhosis (c) HIV - Enlarged lymph
(d) Candida albicans - Inflammation of hear
124) Why dendritic cells are called so?
(a) Because they look like teeth of animals (b) Because they cause dent in the host body (c) Because they look like dendrites of nerve cells
(d) Because they function like nerve cells
125) Which one of the following is not a correct pair?
(a) African sleeping sickness - Tsetse fly (b) Amoebiasis - House fly (c) Kala-azar - Sand fly (d) Malaria - Aedes mosquits
126) Match the following and find the correct answer
(i) Live attenuated vaccnine (A) Salks Polio vaccine
(ii) Killed vaccine (B) Hepatitis vaccine
(iii) Toxoids (C) Measles vaccine
(iv) Second generation (D) DPT vaccine
(a) (i) - C, (ii) - A, (iii) - D (iv) - B (b) (i) - A, (ii) - D, (iii) - B (iv) - C (c) (i) - D, (ii) - B, (iii) - A (iv) - C (d) (i) - B, (ii) - A, (iii) - C (iv) - D
127) Disease communicated by mere contacts are called
(a) Contagious disease (b) Non-contagious disease (c) Allergies (d) None of these
128) Which one is not a bacterial disease?
(a) Tuberculosis (b) Typhoid (c) Leprosy (d) AIDS
129) Congenital diseases by
(a) Disease of genital organs (b) Disease prevent right from birth (c) Disease acquired later on after birth (d) None of these
130) Disease caused by bacteria and viruses are
(a) Infections (b) Degenerative (c) Allergies (d) Cancer
131) Which of the following disease are communicable?
(a) Deficiency disease (b) Allergies (c) Degenerative disease (d) Infectious disease
132) MALT constitutes about percent of the lymphoid tissue in human body
(a) 20% (b) 70% (c) 10% (d) 50 %
133) Which one of the following immunoglobulins does constitute the largest percentage in human milk?
(a) IgM (b) IgA (c) IgG (d) IgD
134) If you suspect major deficiency of antibodies in a person to which of the following would you look for confirmatory evidences?
(a) Serum albumins (b) Haemocytes (c) Serum globulins (d) Fibrinogen in plasma
135) Grafted kidney may be rejected in a patient due to
(a) Cell mediated immune response (b) Passive immune response (c) Innate immune response (d) Humoral immune response
136) The cell-mediated immunity inside the human body is carried out by
(a) B-lymphocytes (b) Thrombocytes (c) Erythrocytes (d) T-lymphocyres
137) Select the correct statement from the followings
(a) Barbiturates when given to criminals make them tell the truth
(b) Morphine is often given to persons who have under gone surgery as a pain killer (c) Chewing tobacco lowers blood pressure and heart rate
(d) Cocaine is given to patients after surgery as it stimulates recovery
138) Match the following
Column I Column II
A) Amoebiasis i) Treptonema pallidum
B) Diphtheria ii) Use only sterilized food and water
C) Cholera iii) DPT vaccine

D) Syphilis

iv) Use oral rehydration therapy

(a)	(A) i, (B) ii, (C) iii, (D) iv (b) (A) ii, (B) iv, (C) i, (D) iii (c) (A) ii, (B) i, (C) iii, (D) iv (d) (A) ii, (B) iii, (C) iv, (D) i
139)	If a person shows production of interferons in his body, the chances are that he has got an infection of
(a)	Typhoid (b) Measles (c) Tetanus (d) Malaria
140)	A person suffering from a disease caused by Plasmodium, experiences recurring chill and fever at the time when?
(a)	The sporozoites released from RBCI are being rapidly killed and broken down inside spleen
(b)	The trophozoites reach maximum growth and give out certain toxins.
(c)	The parasite after its rapid multiplication inside RBC's reptiles them, releasing the stage to enter fresh RBC'S
(d)	The microgametocytes and megagametocytes are being destroyed by the WBC
141)	Where will you look for the sporozoites of the malarial parasite?
(a)	Red blood corpuscles of humans suffering from malaria. (b) Spleen of infected humans
(c)	Salivary glands of freshy moulded female anopheles mosquito. (d) Saliva of infected female anopheles mosquito.
	Which one of the following organisms is scientifically and correctly named, correctly printed according to the international rules of Nomenclature and rectly described?
(a)	Plasmodium falciparum - a protozoan causing the most serious type of malaria.
(b)	Felis Tigris - The Indian tiger is well protected in Gir forests.
(c)	E. Coli - The full name is Entamoeba coli, a commonly occurring bacterium in human intestine. (d) None of these
143)	Which of the following endoparasites of humans does show vivipaity?
(a)	Ancylostoma duodenale (b) Enterobius vermicularis (c) Trichimella spiralis (d) Ascaris lumbricoides
144)	The active form of Entamoeba histolytica feeds upon
(a)	Erythrocytes, mucosa and submucosa of colon (b) Mucosa and submucosa colon only (c) Food in intestine (d) Blood only
145)	Which one of the following statement is correct with respect to AIDS
(a)	The HIV can be transmitted through eating food together with an infected person. (b) Drug addicts are least susceptible to HIV infection.
(c)	AIDS patients are being fully cured 100 percent with proper care and nutrition.
(d)	The causative HIV retrovirus enters helper T-lymphocytes thus reducing their numbers.
146)	Select the correct statement with respect to disease and immunization
(a)	If due to some reason B and T lymphocytes are damaged, the body will not produce antibodies against a pathogen
(b)	Injection of dead / inactivated pathogens caused passive immunity
(c)	Certain protozoans have been used in mass production of hepatitis B vaccine.
(d)	Injection of snake antivenom against snake bite is an example of active immunization.
147)	Which one of the following statements is correct with respect to immunity
(a)	The antibodies against small pox pathogen are produced by T - lymphocytes
(b)	Antibodies are protein molecules each of which has four light chains (c) Rejection of a kidney graft is the function of B - lymphocytes.
(d)	Preformed antibodies need to be injected to treat the bite by a viper snake.
148)	Which one of the following is not , property of cancerous cells whereas the remaining three are
(a)	They compete with normal cells for vital nutrients (b) They do not remain confined in the area of formation
(c)	They divide in an uncontrolled manner (d) They show contact inhibition
149)	At which stager HIV infection does one usually show symptoms of AIDS?
(a)	Within 15 days of sexual contact with an infected person (b) When the infected retro virus enters host cells
(c)	When HIV damages large number of helper T lymphocytes (d) When the viral DNA is produced by reverse transcriptase
150)	which of the following is correct regarding AIDS causative agent HIV?
(a)	HIV is enveloped virus that contains two identical molecules of single-stranded RNA and two molecules of reverse transcriptase

(b) HIV is unenveloped retrovirrrs (c) HIV does not escape but attacks the acquired immune response

(d) HIV is enveloped virus containing one molecule of single - stranded RNA and one molecule of reverse transcriptase

a) Tuberculosis i) harmless virus	
b) Whooping cough ii) inactivated toxin	
c) Diphtheria iii) killed bacteria	
d) Polio iv) harmless bacteria	
(a) (A) ii, (B) i, (C) iii, (D) iv (b) (A) iii, (B) ii, (C) iv, (D) i (c) (A) iv, (B) iii, (C) ii, (D) i (d) (A) i, (B) ii, (C) iv, (D) iii	
152) Haemozoin is	
(a) pre haemoglobin (b) toxins of streptococcus (c) toxins of plasmodium (d) toxins of haemophiles153) Except one of the following all are peripheral lymphoid organs.	
(a) lymphnode (b) spleen (c) MALT (d) thymus	
154) The type of B cells that produce antibodies	
(a) memory cells (b) Basophils (c) plasma cells (d) Killer cells	
155) The tissue damage after a trauma is an example of barrier	
(a) Mechanical barrier (b) Anatomical barrier (c) Phagocytosis (d) Inflammatory barrier	
156) Which of the following type of antibody react with particulate antigen?	
(a) Precipitins (b) Antitoxins (c) Agglutinin (d) Opsonin	6 x 1 = 6
157) Where do the following events in the life cycle of Plasmodium take place? a) Fertilization	0 X 1 - 0
b) Development of gametocytes	
c) Release of sporozoites	
d) Schizogony	
(a) Fertilization - Mosquito's gut	
(b) Development of gametocytes - Red blood cells of human	
(c) Release of sporozoites - Blood stream of human (d) Schizogony - liver of human	
158) is the malignant form of malaria.	
P. falciparum	
159) Production process of blood cells in bone marrow is called	
hematopoiesis	
160) is a primary lymphoid organ of birds.	
Bursa of Fabricius	
161) type of Immunoglobulin is involved in allegric reactions.	
lgE	
162) developed first vaccine for small pox.	
Edward Jenner	
Lawara octinici	16 x 1 = 16
163) Enteric fever	10 x 1 - 10
Diarrhoea	
164) Diarrhoeath	
Diarrhoeas	
165) Diptheria	
Swollenlymph nodes	

151) Match each disease with its correct type of vaccine

166) Lock law

Musclespasm 167) Athlete's foot Fungi 168) Kala - azar Protozoan 169) Measles Virus 170) Diptheria Bacteria 171) Bacillary dysentery Shigella species 172) Black death Yersinia pestis 173) Enteric fever Salmonella typhi 174) Lockjaw Clostridium tetani 175) Vivax malaria 48 hours 176) Quartan malaria 72 hours 177) Mild tertian malaria 2 days 178) Malignant malaria 36 - 48 days 2 x 1 = 2 179) (I) The oocyte undergoes mitotic divisions to form sporozoites (II) Release of schuffner's granules causes fever in malaria (III) The juveniles of filarial worms develop into adult in the lymph glands (Iv) There is a vaccines for malaria (a) i & iii (b) ii and iv (c) iii (d) ii, iv (c) iii 180) (i) Ringworm disease is acquired from soil or by using clothes, towels and comb of an infected person. (ii) WU, chereria bancrofti is a digenic organism (iii) Diphtheria has been eradicated from India (iv) Nipah virus is transmuted from animals to human. (a) iii (b) i, ii and iv (c) iii and iv (d) i andii

i, ii and iv

181) Viruses which cause common cold
Answer: Rhino viruses
182) Diseases which spreads by droplet infection
Answer: Diphiteria
183) Virus which causes measles
Answer: Rubella virus
184) Disease caused by Flavi virus
Answer: Deague fever
185) Another name for dengue fever
Answer: break bone fever
186) Causal organism of chikumgunya
Answer: Alpha virus (or) Tega virus
187) Name the vector for dengue fever
Answer: mosquito-Aedes aegypti
188) Causal organism of chicken pox
Answer: Varicella-Zester virus
189) Name a zoonotic virus
Answer: Nipah virus
190) Transmitting agent for causal organism of African sleeping sickness
Answer: Teste fly
191) Infective stage of Entamoeba histolytica
Answer: Trophozite
192) Infective form of plasmodium present in saliva of mosquito
Answer: Spoozite
193) A sexual reproduction undergone by plasmodium in the liver
Answer: Schizogony
194) Granules seen is schizont of plasmodium
Answer: Shuffners granuls
195) Reduction division seen is zygote of plasmodium
Answer: sporogony