

CLASS : XIth
DATE :

SUBJECT : BIOLOGY
DPP No. : 3

Topic :-MOLECULAR BASIS OF INHERITANCE

- In prokaryotes, the process of replication is catalysed by the following enzymes. Identify which of the enzymes is best coordinate with the role
(A) Helicase– Joins the ends of DNA segments
(B) DNA polymerase I – Synthesis DNA
(C) DNA polymerase II – Erases primer and fills gaps
(D) Primase – Synthesis RNA primers
- The eukaryotic differs from the prokaryotic genome because
(A) Repetitive sequences are present in eukaryotes.
(B) Genes in the former case are organized into operons
(C) The DNA is complexed with with histones in prokaryotes
(D) The DNA is circular and single stranded in prokaryotes
- The double helix model of Waston and Crick is known as
(A) C-DNA (B) B-DNA (C) Z-DNA (D) D-DNA
- Find out the wrong statement
(A) Mobile genetic elements, transposons were visualized by Barbara McClintock
(B) Udder cell, a somatic cell is used to produce the cloned sheep nuclear transplantation method
(C) In pedigree analysis, a person immediately affected by an action is called propositus
(D) Dr. Ian Wilmut produced a cloned sheep called Dolly
(E) DNA ligase are used to cleave a DNA molecule
- Who among the following did not provide experimental proof for the semiconservative model of DNA replication
(A) Meselson & Stahl (B) Cairns (C) Waston & Crick (D) Taylor
- mRNA carries the genetic information from DNA to the _____
or
Which of the following is the site of translation of the mRNA
(A) Chloroplasts (B) Ribosomes (C) Mitochondria (D) Lysosomes
- During DNA replication in prokaryotes DNA is anchored
(A) Chromosome (B) Mesosome (C) Nucleolus (D) Ribosome
- DNA is acidic due to
(A) Sugar (B) Phosphoric acid (C) Purine (D) Pyrimidine
- RNA is not found in
(A) Chromosome (B) Plasmmaalemma (C) Nucleous (D) Ribosome

10. The length of DNA molecule greatly exceeds the dimensions of the nucleus in eukaryotic cells. How is this DNA accommodated
(A) Deletion of non-essential genes
(B) Super-coiling in nucleosomes
(C) DNAase digestion
(D) Through elimination of repetitive DNA
11. The two polynucleotide chains in DNA are
(A) Parallel (B) Discontinuous (C) Antiparallel (D) Semiconservative
12. In DNA of certain organisms, guanine constitutes 20% of the bases. What percentage of the bases would be adenine
(A) 0% (B) 10%
(C) 20% (D) 30%
(E) 40%
13. Base composition in RNA is
(A) $A + T = G + C$ (B) $A + G = T + C$
(C) $A + U = G + C$ (D) $A + G = U + C$
14. Left handed DNA among following is
(A) DNA (B) A DNA
(C) C DNA (D) B DNA
15. Which of the following be named for DNA produced from RNA
(A) A-DNA (B) B -DNA
(C) C-DNA (D) Z-DNA
16. hn-RNA undergoes two additional processing. Out of which, in one of them an unusual nucleotide (methyl guanosine triphosphate) is added to the 5'-end of hnRNA. This is known as
(A) Capping (B) Tailing
(C) Splicing (D) Termination
17. If a segment of an mRNA molecule has the sequence 5' GUACCGAUCG 3', which of the following could have been the template DNA molecule
(A) 5' GCUAGCCUAG 3' (B) 5' GUACCGAUCG 3'
(C) 5' CATGGCTAGC 3' (D) 5' CGATCGGTAC 3'
18. Clover leaf model of tRNA was suggested by
(A) Went (B) Flemming
(C) Holley (D) Messelson
19. Width of DNA molecule is
(A) 15 Å (B) 20 Å
(C) 25 Å (D) 34 Å
20. Z-DNA and B-DNA differ in
(A) Constitution of bases (B) Conformation
(C) Number of helix (D) Base pairing