DPP
DAILY PRACTICE PROBLEMS

CLASS : XIth
DATE :

Solutions

SUBJECT : BIOLOGY
DPP No. : 1

Topic :- MOLECULAR BASIS OF INHERITANCE

1. (B)

2. (A) The tRNA has many varieties. Each variety carries a specific amino acid from the amino acid pool to the mRNA on the ribosomes to form a polypeptide hence its name. A tRNA moleecules as proposed by R.W. Holley in 1965, has the resemblance of a clover leaf that results from self-folding and base pairing, creating paired stems and unpaired loops.

3. (C)

4. (B) Because it caries and transfers the genetic information from one generation to another.

5. (D)

6. (A) Enzyme helicase unwinds the DNA helix and unzips the two strands of DNA.

7. (A) Exon is the active part of m-RNA and intron is the inactive part if m-RNA, which codes the formation of specific protein.

8. (D)

9. (D) Transposons are genetic elements which were originally discovered in maize plant by B.McClintock. It is responsible for turning the expression of gene on or off.

10. (B) With the help of restriction enzymes to cut a DNA sequence. A restriction enzyme Eco R1 will cut DNA only if sequence is present.

11. (A) DNA polymerase was discovered by kornberg and his colleagues in 1955.

12. (A) Amino acid binds with 3′end of m-RNA.

13. (C)

14. (B) According to chargaff (1950) rules $A + T \neq G + C$.

15. (D) DNA ligase adjoins the nucleotides in DNA strand.

16. (A) In transition, a purine (A OR G) or a pyrimidine (C or T or U) in triplet code of DNA or mRNA is replaced by its type, i.e., a purine replaces purine and pyrimidine replaces pyrimidine.

17. (A) Bases sequence in DNA will decide the base sequence in RNA. Uracil (U) will work as substitute for thymine (T) in mRNA. Complementary base pairing for mRNA will be

18. (B) The two template strands of a replicating DNA molecule are antiparallel (5' → 3' and 3' → 5') at the unwinding replication fork (y-shaped). In bacteria and many DNA phages this extending is bi-directional.

19. (A) Replication of DNA occurs at 5' → 3' direction on template DNA.

20. (A) RNA polymerase-III forms t-RNA in Eukaryotes.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	B	A	C	B	D	D	A	D	D	B
Q.	11	12	13	14	15	16	17	18	19	20
A.	A	A	B	C	D	A	A	B	A	A