

CLASS : XIth DATE :

Solutions

SUBJECT: BIOLOGY

DPP No. : 2

Topic: - MOLECULAR BASIS OF INHERITANCE

- 1. (D) DNA polymerase I is a repairing enzyme which introduce and join the defected segment of DNA.
- 2. (B) Avery, Mc Leod and Mc Carty (1944) proved that DNA was the transforming agent.
- 3. (B)
- 4. (C) Diplococcus pneumonia
- 5. (D) mRNA is a polymer of ribo-nucleotide as a complementary strand to DNA and carries genetic in formation of cytoplasm for the synthesis of proteins.
- 6. (D) The strand of DNA, the enzyme forms DNA fragments in small pieces again in $5' \rightarrow 3'$ direction initiating from RNA primer. The primer is formed with the help of primase enzyme.
- 7. (B) During replication two strands of DNA separate or double stranded DNA uncoils by action of enzymes helicase or unwindase enzyme (unwinding protein).
- 8. (C) RNA polymers catalyse polymerization only in one direction, that $5' \rightarrow 3'$ and the strand that has the polarity $3' \rightarrow 5'$ act as a template.
- 9. (B) Gyrase is a type of topoisomerase in E.coli helps in unwinding of DNA.
- 10. (B)
- 11. (E)
- 12. (B)
- 13. (A)
- 14. (B)
- 15. (D)
- 16. (C) Biolistic-it is direct gene transfered method for constructing recombination DNA.
- 17. (D) VNTR (Variable Number of Tandom Repeats Type of satelite DNA) is basis of DNA finger printing.

- 18. (B)
- 19. (C) Western blotting technique is used for transfer of protein from poly-acrylamide gel electrophoresis (PAGE)onto nitrocellulose membrane. Northern blotting is used for RNA transfer and southern blotting for DNA transfer.
- 20. (D)



| ANSWER-KEY | | | | | | | | | | |
|------------|----|----|----|----|----|----|----|----|----|----|
| Q. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Α. | D | В | В | С | D | D | В | С | В | В |
| | | | | | | | | | | |
| Q. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Α. | Е | В | A | В | D | С | D | В | С | D |
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