

**III Semester**

**Class : II UG**

**Major : Biochemistry and Biotechnology**

**Time: 3 hours**

**Max. Marks: 100**

**15BBCC06 Molecular Biology**

**Part-A**

**10 x 1=10**

**Choose the correct answer**

1. The width of DNA molecule is  
a) 15 A°                      b) 3.4 A°                      c) 20 A°                      d) 25 A°
2. A Z-DNA have a  
a) Double helical nature                      b) Zig-Zag apperarence  
c) uracil base                      d) single stranded nature
3. True replication of DNA is possible due to  
a) Hydrogen bonding                      b) Phosphate backbone  
c) Complementary base pairing rule                      d) None of the above
4. Eukaryotes differ from prokaryote in mechanism of DNA replication due to:  
a) Different enzyme for synthesis of lagging and leading strand  
b) Use of DNA primer rather than RNA primer  
c) Unidirectional rather than bidirectional replication  
d) Discontinuous rather than semidiscontinuous replication
5. The enzyme required for transcription is  
a) Restriction enzymes                      b) DNA polymerase  
c) RNApolymerase                      d) RNAase
6. Transcription is the transfer of genetic information from  
a) DNA to RNA                      b) tRNA to mRNA  
c) DNA to mRNA                      d) mRNA to tRNA
7. Which is the source of energy for amino acid activation?  
a) ATP                      b) GTP                      c) CTP                      d) TTP
8. Which of the following statement is correct?  
a) Termination codon has no tRNA  
b) Activated amino acid binds to the 5' end of respective tRNA molecule  
c) CTP is required for amino acid activation  
d) there is only one amino acyl-tRNA synthetase in a cell
9. Transition type of gene mutation is caused when  
a) GC is replaced by TA                      b) CG is replaced by GC  
c) AT is replaced by CG                      d) AT is replaced by GC
10. Gene mutation occurs at the time of  
a) DNA repair                      b) DNA replication  
c) Cell division                      d) RNA transcription

