

**BT207 Assignment Question for classes 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> of January 2023**

1. What is Engineering?
2. Why do we need to study/understand the genome of an organism?
3. What are the different types of DNAs found in organisms?
4. What is a gene?
5. What is the physical significance of a gene?
6. What is the chemical significance of a gene?
7. What are the experiments which showed that the DNA is the genetic material.
8. What is the experiment which explained the replication of DNA.
9. What are the different factors responsible for evolution?
10. What is strain engineering?
11. What are the applications of genetic engineering?
12. Name 5 genetically modified organisms.
13. What is transformation?
14. Why Nitrogen is not a good choice to be used for radiolabeling in the Hershey-Chase Experiments?
15. What is the physical structure and features of a gene.
16. Are all sequences of DNAs genes? Explain.
17. When will you call a sequence of DNA a gene?
18. Explain different types of genes.
19. When do we call a sequence of DNA as gene?
20. How would you physically and chemically confirm a successful clone?
21. Define codon and ORF.
22. What kinds of mutations can affect expression of a gene? Explain.
23. Will a protein lose its function if there is change in the sequence of its gene? When? Explain.