**Q1//Thomas Cezh and his colleague discovered an important event related with RNA what was that and what is other example in this trend, then explain RNA secondary structure and types of it with drawing?**

**Q2// Define transcriptional unit, then mention the components of transcriptional unit and what we mean by upstream and downstream then why we say -76 and +76?**

**Q3// Write types of eukaryotic RNA polymerase regarding to transcription for and location, then explain the importance of sigma factor in the transcription and what is the event that RNA polymerase should recognize?**

**Q4//Define consensus sequence, downstream and upstream mutation, abortive initiation, and how Rho factor affect transcription ?**

**Q5// In addition to core promoter there is another binding site for RNA polymerase what we call it and why and give some examples, then define transcriptional factor and types then clarify how enhancer affect the initiation of transcription of gene?**

 **Each question carries 20 marks**

 **Best wishes**

 **Dr. Zirak F.A. Abdulrahman**