**1.What is the function of mRNA?**

**2.How does mRNA code for a protein?**

**3.What is splicing and what molecule is spliced?**

**4.What are the parts that are cut out and kept called, respectively?**

**5.What is the function of tRNA?**

**6.How many damage sites need to be repaired after removal of RNA primers?**

**7.What are the two most frequent chemical reactions resulting in spontaneous DNA-damage types?**

**8.What kind of DNA damage is induced by UV-irradiation? How is it repaired?**

**9.What is the difference between base excision repair and nucleotide excision repair?**

**10.What kind of radiation induced DNA damage are base excision and nucleotide excision repair for?**

**11.Name the 4 most important types of enzyme involved in DNA-repair**

**12.What are the two repair processes for DSBs?**

**13.Which one is error free and which is error prone?**

**14.What are the proteins that attach to the break in NHEJ?**

**15.What are the proteins that attach to the break in HR?**

**16.What determines whether the repair will be done by NHEJ?**

**17.What is ataxia telangiectasia? Which gene is affected? What is the function of the protein coded by that gene?**

**18.What is the delayed response induced by ATM activation?**

**19.What is the rapid response induced by ATM activation?**