1. In relation to protein synthesis outline the main events of transcription.

**Enzymes unwind the double helix / sequence of nitrogenous bases on the DNA contains the code for a particular protein / enzyme RNA polymerase copies this sequence to form an mRNA strand that is complementary to the DNA strand**

1. What is a triplet? State the role of a triplet.

**Triplet: a sequence of three nitrogenous bases of mRNA; Role: codes for a specific amino acid**

1. Describe the role of tRNA.

**Carries specific amino acids from the cytoplasm to the ribosomes (where they are joined together, in an order determined by the sequence of bases on the mRNA attached to the ribosomes) to form a protein**

1. Explain the terms transcription and translation.

**Transcription: making of (m)RNA using DNA (template); Translation: making a protein using (m)RNA (code)**

1. How many bases in sequence make up a codon in mRNA?

**Three**

1. Each mRNA codon specifies one of three possible outcomes during protein synthesis. Name these three possible outcomes.

**Start; Adding an amino acid; Stop**

1. During translation one end of a tRNA molecule attaches to an mRNA codon. What is usually attached to the other end of the tRNA molecule?

**An amino acid**

1. Give the role of the enzyme RNA polymerase.

**Joins nucleotides together (to give mRNA product) or to make RNA**

1. Write notes (three points) on Codons.

**Sequence(s) of three bases / on DNA / on mRNA or on tRNA / (each codon) codes for one amino acid / that codes for a start (or stop)**

1. Write notes (three points) on Transcription.

**mRNA is formed / using a (single) strand of DNA / (DNA acts) as a template (or described) / in nucleus / (catalysed by) RNA polymerase**