Describe transcription process in eukaryotic cell.

In transcription, the _____ is unwind into single stranded at specific point along its length. Only one of the DNA strands (the antisense strand) used as a _____ and is copied.

There are three stages of transcription which are _____, _____ and _____.

During initiation, _____ polymerase binds at the _____ region of DNA and unwind the double stranded _____. Only one _____ strand is copied. At _____ point of promoter, RNA polymerase start synthesise _____ strand by adding free RNA nucleotides complementary to DNA template. mRNA is transcribed from ____ to _____.

During elongation, as RNA polymerase moves along the unwind strand of _____, complement free RNA nucleotides are added to the ____ end of growing mRNA strand. Cytosine will pair with _____ and uracil will pair with _____. After being transcribed, the unwind single stranded DNA will rejoin and form double stranded helix _____ again.

During termination, _____ reaches termination sequence at terminator. RNA polymerase stop unwind double stranded DNA and stop adding free _____ nucleotide to the mRNA strand. The _____ then detached from the template DNA.

In eukaryotic cell, transcription produce _____. Pre-mRNA needs to undergo an _____ processing to produce a mature _____ before the mRNA moves to cytoplasm for translation process. Firstly, 5′ cap is added to ____ end and 3′ poly-A tail is added to ___ end of pre-mature mRNA, to protect the mRNA degraded by hydrolytic enzymes in _____. Next, pre-mRNA which contains _____ (coding sequence) and _____ (non-coding sequence), will undergoes _____ to remove introns and all _____ are joined. This will form shorter and mature _____ that consist of exon only. Spliceosome is used to remove _____ and join _____. The mature mRNA will moves from nucleus to _____ through nuclear pores.