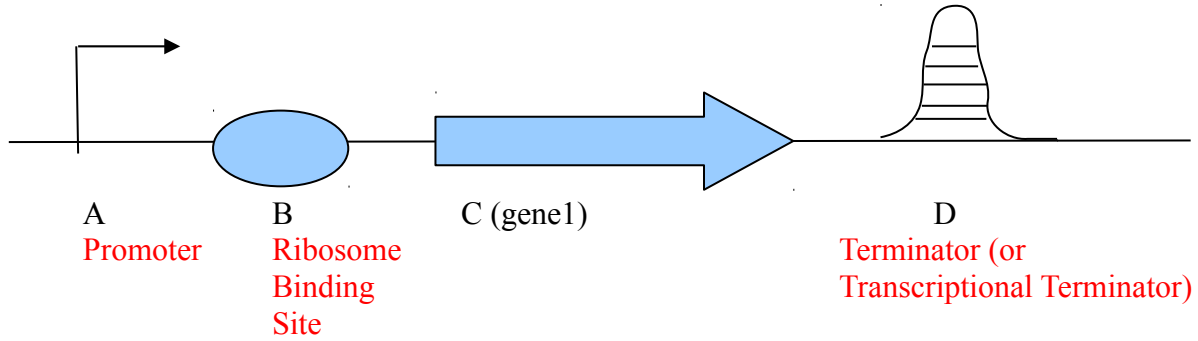


Pop Quiz: Central Dogma of Biology

SEED Academy
Synthetic Biology – Spring 2012

Name: **ANSWER KEY**



1. Label the parts A, B, and D on the DNA strand shown above.
2. What enzyme binds to A? **RNA Polymerase**
3. What 'enzyme' binds to B? **Ribosome**
4. If you changed the DNA sequence of each of the following parts, would transcription or translation be most affected?

A: **Transcription**

B: **Translation**

D: **Transcription**

5. Bonus: Suppose you wanted to insert a new gene, gene2, into the DNA strand shown above, so that gene2 is expressed whenever gene1 is expressed.
 - a) You would also need to include a second copy of either A, B, or D. Which one is needed?

B (Ribosome Binding Site) – otherwise gene2 will not be translated

- b) Where would you insert gene2 and the extra part from (a)?

Either between A and B, or between gene1 and D.