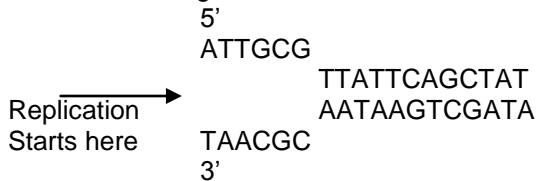


## UNIT 5 TEST REVIEW

### DNA REPLICATION

- 1) The purpose of replication is:
- 2) Why is replication important?
- 3) Replication occurs in what part of the cell:
- 4) In what part of the cell cycle does replication occur?

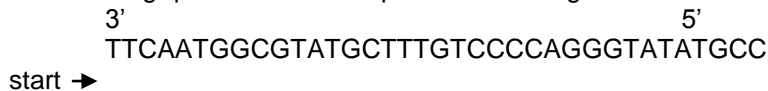
Use the following DNA strand to answer the next two questions:



- 5) What would be the first base added to the leading side?
- 6) What would be the first base added to the lagging side?
- 7) List the main three enzymes involved in replication and describe their role.

### DNA TRANSCRIPTION AND TRANSLATION

- 1) The purpose of transcription is:
- 2) List 5 differences between DNA and RNA:
- 3) In what part of the cell does transcription occur?
- 4) What is read in transcription? Created?
- 5) The purpose of translation is:
- 6) In what part of the cell does translation occur?
- 7) What is read in translation? Created?
- 8) A codon is:
- 9) An anticodon is:
- 10) How does the dna strand determine the type of proteins that are made?
- 11) Answer the following questions based upon the following strand of DNA:



DNA other side  
mRNA  
tRNA  
amino acids

- 12) What is a mutation? What is potentially worse: a frameshift or point mutation? Why?

### MEIOSIS

- 1) Name the phases of meiosis in order.
- 2) What occurs in each phase?
- 3) What do you make at the end of meiosis?
- 4) Where in the body does meiosis occur?
- 5) Sketch meiosis for a cell with 4 chromosomes.
- 6) Why do we need to do meiosis?
- 7) What is crossover and why is it important?
- 8) What is independent assortment, when does it occur, and why is it important?
- 9) Define haploid. Define diploid.
- 10) Does meiosis make diploid or haploid cells?
- 11) What is biodiversity and why is it important?