TEST REVIEW QUESTIONS

1. Compare DNA and RNA. List all the ways they are alike.
2. Contrast DNA and RNA in 3 ways.
3. Identify all forms of RNA.
4. Name the process in which DNA is copied into a complimentary sequence of RNA.
5. T or F The strand of RNA is complimentary to only one strand of DNA.
6. Which type of RNA is the main product of this process?
7. Where does this process take place?
8. Name the enzyme responsible for starting and completing this process.
9. The genetic code is on which nucleic acid?
10. A copy of the genetic code is on which nucleic acid?
11. The genetic code is a ___-__________ code.
12. mRNA is created in the ___________ but does its job in the ____________.
13. Where are codons found?
14. Where are anticodons found?
15. How many different amino acids are used in making polypeptides?
16. Name the process that synthesizes proteins (assembles amino acids into proteins).
17. In what general part of the cell does this process occur?
18. In what specific part of the cell does this process occur?
19. The anticodon is complimentary to what?
20. How many possible combinations of different codons are possible?
21. T or F Each different codon specifies a different amino acid.
22. A protein is the end product of _________________.
23. Identify the protein monomer.
24. What is another name for a string or amino acids or a protein?
25. With a small and limited number of bases, amino acids, and codons, describe 3 ways that 20 to 25 thousand different genes code for all the different proteins needed for growth, repair, or chemical control of cell processes?
26. Any change in DNA (genes) is called a _________________.
27. Identify two general categories of the above changes.
28. The substitution, insertion, or deletion of a nucleotide is what specific type of change?
29. Which of the above has the potential to cause the greatest change?
30. Both of these different types of changes go by another general name. What is it?
31. When any of these occur what is really altered or changed?
32. T/F Genetic changes can be neutral, harmful, or even beneficial.
33. List the four types of chromosomal mutations.
34. Which general type of mutation has the potential to cause the greatest effect on an organism?
35. T/F Mutations that occur in epithelial cells from some mutagen will be passed on.
36. Mutations in what type of cells have the potential to show up in offspring?
37. In eukaryotes, describe the flow of genetic information.
38. The following is the template strand of DNA: (G G A T C T G) Create the complimentary DNA strand.
39. Transcribe the template strand and create mRNA.
40. Translate the mRNA.
41. A deletion of the second G occurs. Show the effect of the mutation on the amino acid sequence.