

Biology Term 2 Assessment Study Guide—2015

Chapter 12—DNA

1. What type of bonds connects the nitrogenous bases? _____
2. To what structure do the nitrogenous bases attach? _____
3. Adenine pairs with _____
Cytosine pairs with _____

Original DNA Strand: **ATTAGCTAGACGGTT**

Mutation #1: **ATTGCTAGACGGTT**

Mutation #2: **ATTCGCTAGACGGTT**

4. What type of mutation is illustrated in mutation #1? _____
5. What type of mutation is illustrated in mutation #2? _____

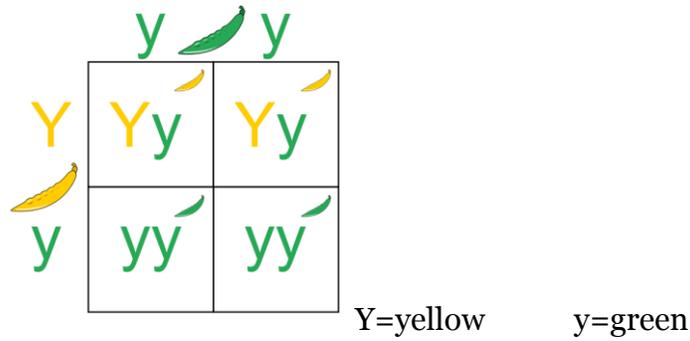
Use the amino acid wheel in your book to answer the following questions.

6. For what amino acid does the codon CAC code? _____
7. What amino acid does UGG code for? _____
8. What other codons code for the same amino acid as AGC? _____

Chapter 11—Meiosis/Genetics

9. Meiosis results in cells with the following characteristics (circle one):
haploid or diploid
identical or different
two or four
10. An organism's diploid chromosome number is 22. What is this organism's haploid chromosome number? _____
11. Mendel crossed true-breeding tall plants with true-breeding short plants. What phenotype did all of these offspring show? _____
12. What does heterozygous mean? _____
What other word means heterozygous?

13. What does homozygous mean? _____
What are other word means homozygous?



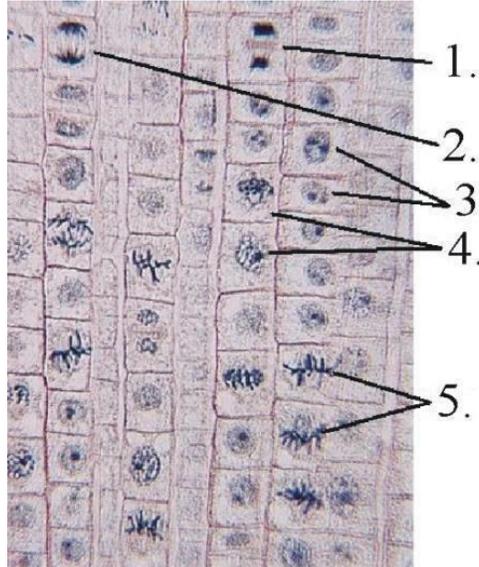
14. What are the phenotypic ratios in this cross? _____
15. What are the genotypic ratios in this cross? _____
16. What fraction shows how many of the offspring will be heterozygous? _____
17. What does the term phenotype mean? _____
18. What does the term genotype mean? _____
19. Define a situation in which codominance is illustrated.

	I^A	i
I^B	$I^A I^B$	$I^A i$
i	$I^A i$	ii

Use the above blood typing cross to answer the following questions.

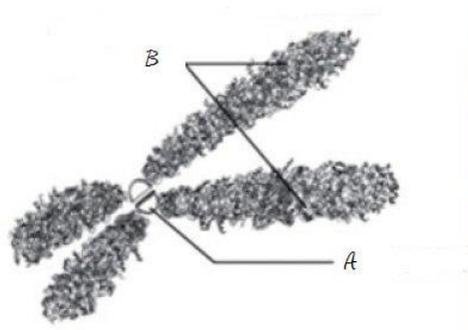
20. What blood types do the offspring have a chance of obtaining? _____
21. Is either parent a carrier for the gene that codes for O blood? _____
22. Will any of the offspring have B blood? _____

Chapter 10—Mitosis



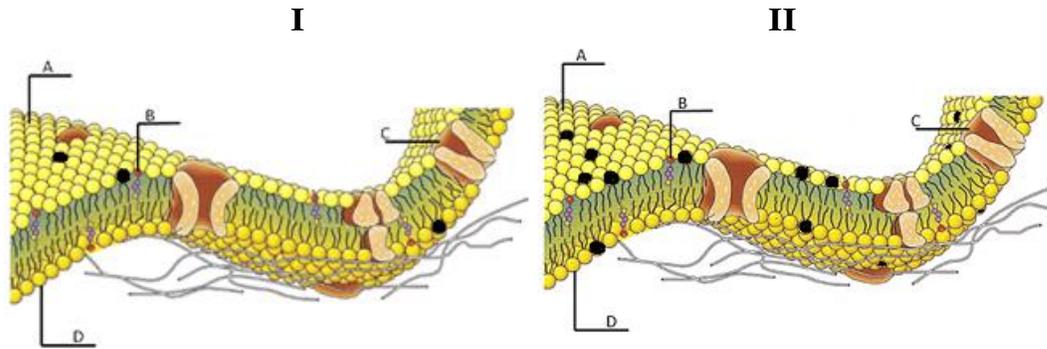
Use the above diagrams to answer the following questions.

23. Which mitotic phase is labeled #2? _____
24. Which number illustrates the chromosomes lining up in the middle of the cell? _____
25. Place the phases in order—starting with interphase, using the labeled numbers. _____



26. What is the term for the structure pictured above? _____
27. What is the term for the portion labeled A? _____
28. What is the term for the portion labeled B? _____

Chapter 07—Membrane



29. Which part of the membrane in Figure 1 acts as a marker to other chemicals so your immune system can distinguish between your cells and those of a pathogen? _____

30. Which membrane would be more fluid? _____

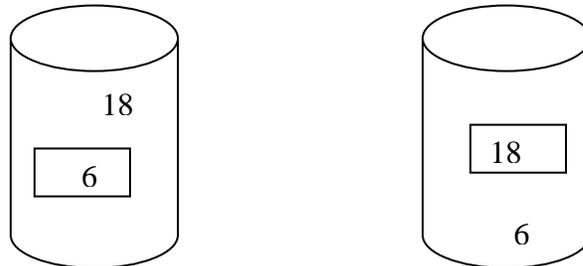
31. Which membrane would be better suited to an arctic fox? _____

32. Which molecule in Figure 1 makes the membrane more stable?

33. Which part of the membrane refers to phospholipids?

34. Which part of the membrane is mainly responsible for maintaining homeostasis? _____

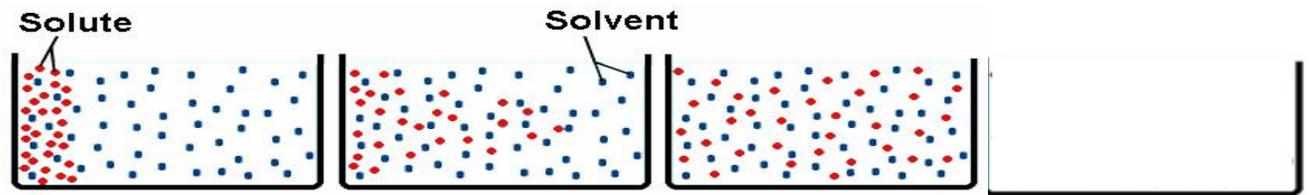
35. Define the term selectively permeable.



Use the above diagram to answer the following questions.

36. What type of cell is illustrated in the first portion of the diagram and what occurs in that cell? _____

37. What type of cell is illustrated in the second portion of the diagram and what occurs in that cell? _____



Use the above diagram to answer the following questions.

38. What concept is illustrated in the above figure? _____

39. What would happen in the final portion of the above figure?

40. KNOW ALL VOCABULARY TERMS FOR ALL UNITS!!!

STUDY HARD AND ENJOY YOUR CHRISTMAS BREAK AFTER FINALS! ☺

T2 ASSESSMENT SCHEDULE

Term Assessment Schedule - Day 1 Monday, December 21

1st Hour Exam	7:45 AM - 8:45 AM
2nd Hour Exam	8:50 AM - 9:50 AM
3rd Hour Exam	9:55 AM - 10:55 AM
4th Rocket Academy/A Lunch	11:00 AM - 11:25 AM (Announcements)
4th Rocket Academy/B Lunch	11:30 AM - 11:55 AM (Announcements repeated)
4th Rocket Academy/C Lunch	12:00 AM - 12:25 PM
5th Hour Exam	12:30 PM - 1:30 PM

Term Assessment Schedule - Day 2 Tuesday, December 22

6th Hour Exam	7:45 AM - 8:45 AM
7th Hour Exam	8:50 AM - 9:55 AM (5 minutes for announcements)
8th Hour Exam	10:00 AM - 11:00 AM
