

Biology
Chapter 12
Review Sheet

33 - 30 = 5 Key 33 pts
29 - 27 = 4
26 - 23 = 3
22 - 20 = 2
19 - ↓ = 1

- +1 1. A mutation in a series of genes, called the HOX genes, can change the organs that develop in specific parts of an embryo.
- +1 2. After introns are cut out of an RNA molecule, the remaining exons are spliced back together to form the final messenger RNA.
- +1 3. In Figure 12-7, A, B, and C are three types of RNA.

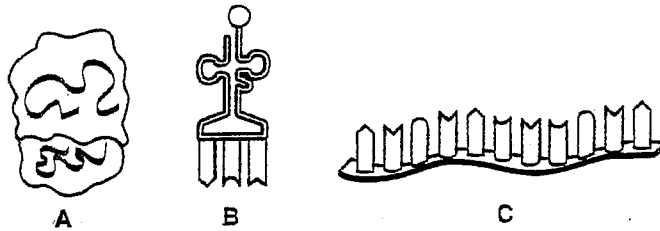


Figure 12-7

- +1 4. Chromatin contains proteins called histones.
- +1 5. According to the principle of base pairing, hydrogen bonds can form only between adenine and thymine, and between guanine and cytosine.
- +1 6. A bacteriophage is a kind of virus that infects bacteria.
- +3 7. Ribose molecule, phosphate group, and nitrogen base are the three main parts of an RNA nucleotide.
- +1 8. A stop codon on the mRNA causes the translation to stop.
- +1 9. A mutation is a change in the genetic material.
- +1 10. Avery's experiments showed that bacteria are transformed by DNA.
- +1 11. DNA is copied during a process called replication.
- +1 12. RNA contains the sugar ribose.
- +1 13. RNA molecules are produced during transcription.
- +1 14. Genes contain instructions for assembling proteins.
- +1 15. A mutation that involves a single nucleotide is called a(n) point mutation.

+1 23. Hox genes determine an animal's

- A a. Basic body plan
b. Size
c. Skin color

+1 24. What does Figure 12-6 show?

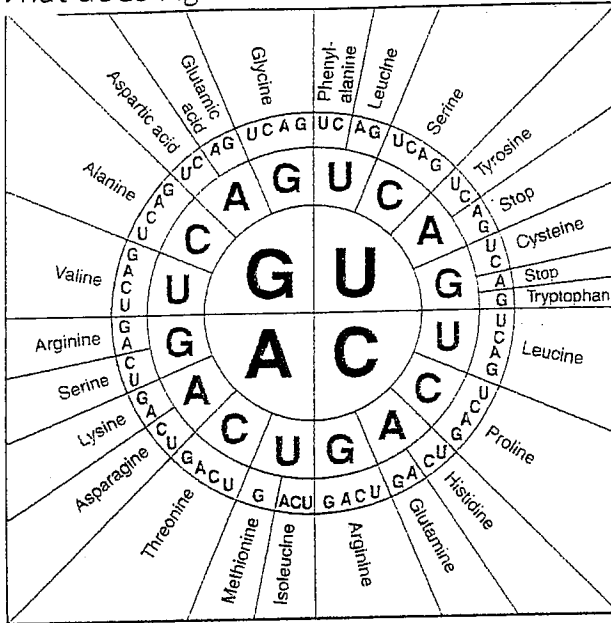


Figure 12-6

- C a. The order in which amino acids are linked.
b. The code for splicing mRNA.
c. The genetic code.

+1 25. What must happen to a DNA molecule before RNA polymerase can make RNA? The DNA molecule must be separated into two strands.