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CHAPTER 7 – MEIOSIS

1. The number of individual/-s involved in asexual reproduction is \_\_, whereas in sexual reproduction is \_\_.
   1. 1; 1
   2. 1; 2
   3. 2; 1
   4. 2; 2
2. For evolution (to avoid extinction) it is better to reproduce:
   1. Asexually
   2. through cloning
   3. through mitosis
   4. Sexually
3. Which of the following is beneficial for evolution:
   1. All individuals be identical
   2. All females be identical
   3. All males be identical
   4. All individuals be different
4. Which one is not a source of variability:
   1. Crossover
   2. Random assortment
   3. Random fertilization
   4. Mitosis
5. The number of chromosomes before meiosis is \_\_\_\_\_\_\_\_\_, and after meiosis is \_\_\_\_\_\_\_\_\_\_\_\_:
   1. 2n; 2n
   2. 2n; n
   3. n; n
   4. n; 2n
6. The mitosis makes \_\_\_\_\_\_\_\_\_\_ daughter cells while the meiosis makes \_\_\_\_\_\_\_\_\_\_\_\_\_ daughter cells.
   1. 2; 2
   2. 2; 4
   3. 4; 2
   4. 4; 4
7. The number of divisions during mitosis is \_\_\_\_\_\_\_ while in meiosis is \_\_\_\_\_\_\_\_\_\_:
   1. 2;2
   2. 2;1
   3. 1;2
   4. 1;1
8. Which one takes place in both mitosis and meiosis:
   1. Synapsis
   2. Cross-over
   3. Random assortment
   4. Metaphase plate
9. Chromosomes duplicate during S-phase:
   1. Once before meiosis I
   2. Once before meiosis II
   3. Twice before meiosis I
   4. Twice before meiosis II
10. Choose the correct statement:
    1. Sister chromatids separate in meiosis I
    2. Chromosomes separate in meiosis II
    3. Sister chromatids separate in mitosis
    4. Chromosomes separate in mitosis
11. Crossing-over takes place during:
    1. Prophase I
    2. Metaphase I
    3. Anaphase I
    4. Telophase I
12. Choose the statement that matches the best: crossing-over happens between \_\_\_\_\_\_\_.
    1. Sister chromatids
    2. Chromatids of homologs
    3. Chromatids of non-homologs
    4. sister chromatids of non-homologs
13. Random assortment happens in:
    1. Prophase I
    2. Metaphase I
    3. Anaphase I
    4. Telophase I
14. When you see a person with Down syndrome, you know that they have:
    1. 1 extra chromosome 21
    2. 1 missing chromosome 21
    3. 46 chromosomes
    4. 45 chromosomes
15. A baby with Down syndrome is an indication of mistakes during \_\_\_\_\_:
    1. Meiosis in parents
    2. Mitosis in parents
    3. Meiosis in the baby
    4. Mitosis in the baby
16. A tortoiseshell fur color in a cat is an indication the cat is:
    1. Female
    2. Male
    3. Hermaphrodite
    4. Sick
17. Turner syndrome (XO) is an example of:
    1. Euploidy
    2. Aneuploidy
    3. Polyploidy
    4. Heteroploidy
18. Cri-du-chat is an example of disease caused by:
    1. Deletion
    2. Inversion
    3. Translocation
    4. Insertion
19. An example of a trisomy is:
    1. XXY
    2. XX
    3. XY
    4. XO
20. The sex chromosomes for a baby boy are:
    1. XX
    2. XY
    3. YO
    4. XXY