

Human Genetics and Health Genealogy

Genealogy · Practice Test · 25 Questions

1. What are the basic units of heredity that are passed from parents to their children?

- A) Cells
- B) Genes
- C) Tissues
- D) Organs

2. Which molecule carries the genetic instructions for the development and function of living things?

- A) DNA
- B) Water
- C) Protein
- D) Sugar

3. How many chromosomes do humans typically inherit from each biological parent?

- A) 10
- B) 23
- C) 46
- D) 92

4. What substance in your body determines physical characteristics like eye color and hair texture?

- A) Blood
- B) DNA
- C) Bone
- D) Muscle

5. Which of these is a health condition that can be passed down through family genes?

- A) Sunburn
- B) Common Cold
- C) Cystic Fibrosis
- D) Broken Bone

6. Where is the majority of a human cell's DNA located?

- A) Nucleus
- B) Cell wall
- C) Cytoplasm
- D) Ribosome

7. What is the term for a permanent change in the DNA sequence that makes up a gene?

- A) Mutation
- B) Evolution
- C) Infection
- D) Digestion

8. Which blood-related condition can be inherited from parents?

- A) Sickle cell anemia
- B) Dehydration
- C) Anemia from iron deficiency
- D) Motion sickness

9. What is the common term for the family history of health conditions used by doctors to assess risk?

- A) Medical pedigree
- B) Family health history
- C) Social chart
- D) Doctor notes

10. Humans typically have how many total chromosomes in each cell?

- A) 23
- B) 46
- C) 69
- D) 92

11. Which organ system is primarily responsible for passing genetic information to the next generation?

- A) Reproductive system
- B) Digestive system
- C) Skeletal system
- D) Nervous system

12. Inherited traits that are 'recessive' typically require how many copies of the gene to be expressed?

- A) One
- B) Two
- C) Four
- D) Ten

13. What is the shape of a DNA molecule?

- A) Double helix
- B) Square prism
- C) Single sphere
- D) Flat circle

14. Which of these is a trait often influenced by genetics?

- A) Height
- B) Favorite color
- C) Language spoken
- D) Political view

15. What is the study of how traits are passed from parents to offspring called?

- A) Genetics
- B) History
- C) Chemistry
- D) Physics

16. Which pair of sex chromosomes typically indicates a biological male?

- A) XX
- B) XY
- C) YY
- D) XO

17. Which pair of sex chromosomes typically indicates a biological female?

- A) XX
- B) XY
- C) YY
- D) XO

18. What determines the specific sequence of amino acids in a protein?

- A) DNA sequence
- B) Water levels
- C) Skin color
- D) Body weight

19. Which of these can affect how your genes are expressed?

- A) Environmental factors
- B) Writing a letter
- C) Wearing a hat
- D) Walking fast

20. What is a 'carrier' in the context of genetics?

- A) A person who has the gene but no symptoms
- B) A person who has a cold
- C) A person who carries heavy boxes
- D) A person who has no genetic risk

21. Genes provide the instructions for the body to build which essential molecules?

- A) Proteins
- B) Fats
- C) Carbohydrates
- D) Vitamins

22. Are acquired skills, like playing an instrument, passed directly through DNA to offspring?

- A) Yes, always
- B) Sometimes
- C) No, they are learned
- D) Only in adulthood

23. What is the biological process called where genetic material is passed to the next generation?

- A) Inheritance
- B) Digestion
- C) Excretion
- D) Respiration

24. Which type of cell does NOT contain a full set of human DNA?

- A) Red blood cell
- B) Skin cell
- C) Muscle cell
- D) Liver cell

25. What do scientists call the complete set of genetic material in an organism?

- A) Genome
- B) Organism
- C) Population
- D) Species