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READ THE TEXT CAREFULLY, THEN ANSWER THE FOUR QUESTIONS BELOW

WHAT IS YOUR ‘BIOLOGICAL AGE’?

If you’ve ever been to a high school reunion, you know that some people seem to age faster than others. Twenty-five years after graduation, one classmate can appear a decade younger than the rest, another a decade older. Scientists are working to quantify this phenomenon and put a number to a person’s “biological age” by looking at their cellular health instead of how many years they’ve been alive.

5 Researchers define biological age as “the accumulation of damage we can measure in our body.” The concept is often attributed to the British physician-scientist Dr. Alex Comfort, but for decades, scientists didn’t know how they might measure someone’s biological age.

10 A major advance came in 2013 when Steve Horvath, a professor of human genetics at the University of California, proposed using a “clock” based on epigenetics. Over the course of our lives, our DNA accumulates molecular changes that turn on and off various genes. He analyzed these changes in thousands of people and developed an algorithm to determine how they correlate with age.

15 These changes happen naturally as we get older; they can also be sped up by behaviors that affect health, like smoking and excessive alcohol consumption.

20 But experts caution that epigenetic clocks can’t actually tell you much about your own health, because they were designed to assess large groups of people, not individuals. Consequently, their results can be unreliable. There are also other products on the market promising to measure biological age. Some companies offer a panel of conventional blood tests, like cholesterol or hemoglobin A1C, a marker for diabetes. They say that because many of these numbers increase as we get older, they can be used to know a person’s biological age. An advantage of this kind of test is that it measures factors that can be modified; we know how to lower blood sugar levels through medication and lifestyle changes, for example.

“Expanding access and using more frequent testing to optimize health seems fairly reasonable to me,” Dr. Paganik said. But, he added, “any claims of accurate, individual-level determination of biological age should be approached with caution.” (Fragment adapted from *The New York Times*.)

1) ARE THE FOLLOWING STATEMENTS TRUE OR FALSE? JUSTIFY YOUR ANSWER BY WRITING THE CORRESPONDING WORDS OR SENTENCES OF THE TEXT (2 POINTS; 0.5 POINTS EACH).

1. Twenty-five years after graduation, classmates always look their real age.
2. Researchers define biological age as “the accumulation of damage we can measure in our legs”.
3. Steve Horvath is a professor that coined the term “biological age”.
4. One of the things that Dr. Paganik said was that using more frequent testing to optimize health was fairly reasonable to him.

2) ANSWER THE FOLLOWING QUESTIONS USING INFORMATION FROM THE TEXT. YOUR ANSWERS MUST NOT BE A LITERAL COPY OF THE TEXT, ALTHOUGH SOME WORDS THAT APPEAR IN THE TEXT CAN BE USED (2 POINTS; 1 POINT EACH).

1. What accumulates molecular changes over the course of our lives?
2. Name two kinds of substances that affect health, according to the text?

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3) VOCABULARY (1.5 POINTS).

3.1 Find one word in the text for this definition (0.3 POINTS):

a) A type of fat-like substance found in the blood.

3.2 Find a synonym in the text for each of the words below (1.2 POINTS; 0.4 POINTS EACH):

a) development
b) firms
c) precise

4) MULTIPLE CHOICE OPTION EXERCISE. CHOOSE THE MOST APPROPRIATE ANSWER FOR EACH QUESTION (a, b, c, or d) ACCORDING TO THE INFORMATION GIVEN IN THE TEXT (1.5 POINT; 0.5 POINTS EACH).

1. When do you realize, according to the text, that some people age faster than others?
A) When you divorce your first wife.
B) Right after you leave High School.
C) 25 years after graduation.
D) A decade after your first job.
2. What do scientists do when they have a look at your cellular health?
A) They tell you that your health has deteriorated.
B) They tell you that your health is great.
C) They put a number to your biological age.
D) They make a guess at your biological future.
3. What is hemoglobin A1C?
A) It is an enzyme that protects your vascular system.
B) It is a marker for diabetes.
C) It is a marker for Covid-19.
D) It is a type of protein that helps you keep fit.

5) SELECT AND WRITE THE COMPOSITION THAT YOU PREFER FROM THE FOLLOWING OPTIONS. USE BETWEEN 120-150 WORDS (3 POINTS).

Are you in favor of altering your physical look by surgical procedures? Justify your answer.

Keeping the air quality in city centers is a real issue in many places. How can we solve the problem of pollution in city centers?