

1. Reading Comprehension:

(12 marks)

1. It is not uncommon for children to despise kale, broccoli or the bitter taste of brussel sprouts. By the time we become adults, many of us have learned to eat our greens. But it wasn't just willpower that helped you to develop a taste for foods that once made you grimace. New research shows that proteins in our saliva may adapt and bind to bitter compounds, making them more palatable.

2. The study, presented by an American Chemical Society meeting this week, found that when people were repeatedly exposed to bitter compounds in cocoa, their saliva changed to produce proteins that rendered the flavor of those compounds less bitter.

3. "Bitter taste tends to be rejected" said Cordelia A. Running, an Assistant Professor in Food and Nutrition Science and the study's lead researcher. But "This is something you might actually be able to change about yourself biologically."

4. Over the course of six weeks, the researchers had 64 study participants drink three 8 ounce glasses of almond or cow's milk with cocoa a day on alternate weeks, each time rating the drink's flavor. While chocolate milk might not sound like a bitter thing to swallow, it contained only 4 % added sugar.

5. As the participants' bitterness ratings decreased, the researchers saw changes in their saliva "reasonably quickly", Running said. But those changes didn't last; a person would need to continue eating bitter foods to maintain their tolerance, she said. Running thinks that by binding the bitter compounds, the salivary proteins may not only make the food taste better, but may also prevent your body from absorbing them fully – whether this is protective or diminishes the foods' nutritional value is unknown.

6. John Glendining, a Professor of Biology at Barnard College said it was exciting to see the research – which had previously only been conducted on rodents – extended to humans. But, he added just because proteins bind to the bitter compounds in chocolate that does not necessarily mean the same will occur in cruciferous vegetables.

1.1 On the basis of your reading, answer the following questions: (2x4 = 8)

- a) How have the children learned to eat greens?
- b) What are the findings of the study at the American Chemical Society?
- c) Why chocolate milk might not sound like a bitter thing to swallow?
- d) How does the salivary protein prevent your body from absorbing them fully?

1.2 Answer the following:

(1x4 = 4 marks)

- e) New research shows that proteins in our saliva adapt and bind to bitter compounds. (True/False)
- f) According to Cordelia Running, bitter taste is something we might be able to change about ourselves _____.
- g) A word from Para 1 that means the same as 'dirty expression' is _____.
(i) frightening (ii) wince (iii) grimace (iv) serious
- h) A word which means the same as 'reduces' in Para 5 is _____.
(i) reuses (ii) diminishes (iii) recycle (iv) reforms

2. You visited a toy shop to buy your little brother a gift for his birthday. While looking around for suitable items, you were shocked to find that several toys were unsuitable for kids as they glorified violence, yelling and other unsocial elements. **Write a letter**, in 100-120 words, to the editor of the local newspaper, criticizing toy makers for such insensitive products. You are Nishdeep of J-139, Laburnum Apartments, Gurgaon. **(8 marks)**
