

FOODS: EXPERIMENTAL PERSPECTIVES

Eighth Edition

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Chapter 1. Today's Food Scene**Multiple Choice**

1. Among the careers involving food are those for (1) dietitian, (2) food service, (3) food scientist, (4) nutritionist, (5) all of the above.

Answer: 5

2. Bt is a term meaning (1) beets, (2) beef, (3) biologically tainted, (4) genetically modified, (5) none of these.

Answer: 4

3. GMO is a term meaning (1) beets, (2) beef, (3) biologically tainted, (4) genetically modified, (5) none of these.

Answer: 4

4. Phytochemicals include (1) beta glucan in oats, (2) catechins in green tea, (3) isoflavones in soy products, (4) lycopene in tomatoes, (5) all of the above.

Answer: 5

5. Aspects that define palatability of a food include (1) color, (2) flavor, (3) mouthfeel, (4) 1 and 2, (5) 1, 2, and 3.

Answer: 5

6. Ultragrain flour is (1) a rye mutation, (2) a cellulose with gluten added, (3) a new strain of wheat milled to a fine texture, (4) a mixture of wheat and triticale flours, (5) a mixture of triticale and rye flours.

Answer: 3

True-False

7. T or F. Regulations for labeling food “organic” are more restrictive than for foods that are not labeled “organic.”

Answer: True

8. T or F. Probiotics are active in the small intestine.

Answer: True

9. T or F. Designer foods are being promoted to help consumers lose enough weight to wear designer fashions.

Answer: False

10. T or F. Phytochemicals are chemical compounds in plants that people need to eat for life and growth.

Answer: False

11. T or F. Genetically modified organisms (GMO) are not well accepted by some people because of consumer worries about safety.

Answer: True

12. T or F. Nanotechnology is based on genetically modifying microorganisms.

Answer: False

13. T or F. Nanotechnology may be useful in some packaging materials.

Answer: True

14. T or F. The National Organic Program has been implemented because there is definite proof that organically grown food is more nourishing than food that does not meet the requirements to be labeled organically grown.

Answer: False

15. T or F. Concerns about the incidence of obesity in the United States have prompted the food industry to focus on ways to modify the fat content of many food products.

Answer: True

16. T or F. The food marketplace is undergoing limited changes because the U.S. population is quite constant in its demographics (e.g., age distribution and ethnicity).

Answer: False

Essay

17. Forecast what you see happening in the food marketplace in the next 25 years. Take into account consumer trends and lifestyles in your discussion.

Answer: In forecasting the food marketplace 25 years from now, one might see an increase in prevention and treatment of disease through nutrition. This would be in response to the increase in the 65 years and older population group. Consumers will be interested in foods that have been linked to reducing the risk of obesity, heart disease and cancer. The current interest in cultural

foods will increase in response to the increasing cultural diversity of the population. Expect more foods representing other cultures, including Mexican, soul, and Asian food products. With the continued acceleration in the pace of life, expect more convenience foods: frozen, refrigerated, and dried. Small portions of food for snacking and small meals will continue to grow. Consumers will also demand accountability in the food supply, both from food safety and environmental standpoints.]

18. Distinguish between the following:

Natural and organic foods

Answer: A natural food is one made without chemical or artificial additives. An organic food is a food where no chemical fertilizers or pesticides were applied when the crops were being grown.

Functional food and designer food

Answer: A functional food contains useful amounts of chemical compounds that promote health beyond basic nutrition. A designer food is formulated to contain enhanced levels of phytochemicals.

Biotechnology and genetic engineering

Answer: Biotechnology is the development of new products by making a genetic modification in a living organism. Genetic engineering is biotechnology in which a genetic modification is achieved by removing, adding, or modifying genes.

19. Enumerate the careers available to food professionals in health settings, feeding people away from home, and in basic food science. Relate this discussion to the skills needed to meet your personal career goal.

Answer: Health - nutritionists and dietitians (R.D.N.) finding careers in clinical dietetics, food service administration, community nutrition, sports nutrition, consulting, nutrition counseling, and industries based on nutrition-related products. Food settings away from home - hospitality, hotels, and restaurant settings with emphasis placed on preparation and applied aspects of food and its service to groups of people. Entrepreneurs might operate their own restaurants; other fields include restaurant managers and catering. Food businesses provide a variety of careers in product development, quality assurance, food analysis, processing, packaging, microbiology and food safety, sensory evaluation, physical testing, labeling and governmental regulation, and marketing. Discussion of skills (writing, oral communication, scientific leaning, public relations, management, etc.) would relate to each student's personal career choice.

Critical thinking/discussion

20. Weigh the benefits and detriments of organic and GMO foods.

Answer: Benefits - may have less pesticide residue; no chemical fertilizer

Detriments - reduced crop yields; more expensive produce for consumers; nutrient content very similar in both types; may carry microbiological contaminants from natural fertilizers

Chapter 2. Water

Multiple Choice