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**Multiple Choice & True/False-3 points each**

1. Nutrients are broken down into two different types based on

a) how many calories they provide

b) how much they are needed in the body

c) how easily they are digested and absorbed

d) the size of the nutrients

2. How many calories are in a meal that contains 10 grams of fat, 22 grams of protein, and 60 grams of carbohydrates?

a) 418

b) 668

c) 478

d) 368

3. Which of the following is not a macronutrient?

a) lipids

b) carbohydrates

c) vitamins

d) protein

4. Which type of epidemiological study typically requires looking back in time for data for the study?

a) cross-sectional study

b) prospective cohort study

c) case-control study

d) None of the above. They all look to the present for data

5. Which type of clinical trial is most likely to have the least amount of bias and is considered the gold standard?

a) non-randomized single blind clinical trial

b) randomized double blind clinical trial

c) non-randomized double blind clinical trial

d) randomized single blind clinical trial

6. Dietary Reference Intakes

a) are qualitative

b) are meant for the public

c) include the Recommended Dietary Allowances

d) all of the above

7. The Estimated Average Recommendation is estimated to meet the needs of \_\_\_% of the population while the Recommended Dietary Allowance is estimated to meet the needs of \_\_\_% of the population.

a) 50%, 25%

b) 34%, 13.5%

c) 50%, 97.5%

d) 97.5%, 100%

8. What do the dietary guidelines primarily focus on?

a) health promotion

b) disease risk prevention

c) smoking cessation

d) both a and b

9. The Dietary Guidelines are used as the basis for nutrition policy at the federal level.

a) True

b) False

10. Which of the following is a diet-related chronic disease that the dietary guidelines are concerned with?

a) cancer

b) diabetes

c) osteoporosis

d) all of the above

11. What is the current USDA Food Guide?

a) MyPyramid

b) MyPlate

c) Healthy Eating Pyramid and Plate

d) Food Guide Pyramid

12. On the nutrition facts panel, some nutrients do not list a %DV because we should avoid eating those nutrients.

a) True

b) False

13. Ingredients are listed on the nutrition facts panel based on

a) how the manufacturer wants to list them

b) ascending order by weight

c) alphabetical order

d) descending order by weight

14. When determining how much of a dietary supplement to take, one should rely on

a) how much they personally feel they need to take

b) advice from their trainer

c) advice from their doctor

d) the serving size on the bottle

15. Supplements are most likely to cause harm when

a) they are taken instead of prescribed medication

b) they are taken alone

c) they are purchased over the counter

d) all of the above

16. Which of the following does the FDA do to regulate dietary supplements?

a) provide pre-market approval

b) establish quality standards

c) tests for quality

d) all of the above

17. Which of the following describes the level of a nutrient in a food or beverage product?

a) health claim

b) supplement claim

c) structure/function claim

d) nutrient content claim

18. A claim such as “calcium builds strong bones” is an example of what?

a) nutrient content claim

b) health claim

c) supplement claim

d) structure/function claim

19. Accessory organs of digestion come into direct contact with food and digestive content.

a) True

b) False

20. Enzymes involved in the digestion in the small intestine include

a) pancreatic alpha-amylase and pancreatic lipase

b) pepsin and pancreatic alpha-amylase

c) salivary amylase and gastric lipase

d) lingual lipase and pepsin

21. What is the role of mucus, secreted by the neck cells, in the stomach?

a) prepares fat for digestion in the small intestine

b) protects stomach mucosa from damage

c) inactivates enzymes

d) digests protein

22. Which accessory organs are involved in the production and storage of bile?

a) duodenum and gall bladder

b) liver and gall bladder

c) liver and pancreas

d) pancreas and duodenum

23. Which of the following statements on digestion in the small intestine is not true?

a) Most protein digestion takes place in the small intestine.

b) Different enzymes within the small intestine help digest the different types of fat.

c) Carbohydrates are already digested by the time they reach the small intestine so minimal digestion of them occurs there.

d) None of the above. All statements are true.

24. What happens to glucose not taken up by the liver?

a) It is taken up by muscle and fat cells.

b) It is absorbed by insulin.

c) It remains in the blood stream until the liver is ready to take it up.

d) It is immediately burned off as energy.

25. Carbohydrates are produced by animals.

a) True

b) False

26. Beta bonds in disaccharides

a) are v-shaped

b) require a special enzyme that some humans lack

c) are found in maltose and sucrose

d) all of the above

27. Fiber rich carbohydrates are vital to our health because they

a) can help control weight

b) reduce risk of cardiovascular diseases

c) provide energy

d) all of the above

28. When nutrients lost through food processing of grains are added back, the grains are called

a) refined grains

b) whole grains

c) fortified grains

d) enriched grains

29. Which of the following is not a function of protein in the body?

a) transporting molecules through the body

b) as enzymes

c) maintain balance of fluids in the body

d) main energy source

30. Because our bodies can make non-essential amino acids, we do not need to consume them in our diets.

a) True

b) False

31. Which of the following is not true concerning protein intake?

a) Consuming too much animal protein has been linked to increase risk for heart disease.

b) For those with impaired kidney function, low protein diets are recommended.

c) Most American currently do not consume enough protein.

d) Consuming too much protein can contribute to an over consumption of calories.

32. Which of the following nutrients are vegetarians typically concerned with getting enough of?

a) carbohydrates

b) iron

c) vitamin C

d) fiber

33. Fatty acids differ from one another based on what?

a) chain length

b) whether they are saturated or unsaturated

c) configuration of double bond

d) all of the above

34. As fatty acid chain length increases, melting point decreases.

a) True

b) False

35. Shorter chained fatty acids tend to be \_\_\_\_\_\_\_\_\_\_\_ than longer chained fatty acids, at room temperature.

a) more saturated

b) less saturated

c) more solid

d) more liquid

36. Trans fat in the diet has been found to \_\_\_\_\_\_\_ LDL cholesterol and \_\_\_\_\_\_\_\_ HDL cholesterol.

a) increase, increase

b) decrease, increase

c) increase, have no change on

d) increase, decrease

37. Which type of fat has both water loving and water fearing qualities?

a) triglycerides

b) diglycerides

c) phospholipids

d) sterols

38. If the nutrition facts panel states 0 grams of trans fat in a product, we know that product contains no trans fat.

a) True

b) False

39. Cholesterol is found in which types of foods?

a) fruits and vegetables

b) animal based foods

c) plant based protein foods such as beans

d) both b and c

40. All of the following are heart healthy benefits of omega 3 fatty acids except

a) decrease blood pressure

b) improve function of artery cells

c) decrease blood triglycerides

d) increase inflammation

**SHORT ANSWER AND MATCHING-points vary with each question**

41. (25 points) John reads the food labels of everything he ate for one day and records the amount of carbohydrates, protein, and fat for each item. He totals each of these and comes up with:

350 grams carbohydrate, 95 grams protein, 85 grams fat

Help John figure out how many calories he ate and what percentage of those calories came from each of these nutrients. (Be sure to show work.)

Total Calories -

% Carbohydrate Calories -

% Protein Calories -

% Fat Calories -

Do these percentages fall within the recommendations for percentage of calories from the macronutrients? Explain.

42. (20 points) Looking at the provided food label, answer the following questions.

a. How many servings are in this one package?

b. If you ate 2 cups of this food, how many servings did you just eat?

c. If you ate half the package, how many calories would you have consumed?

d. Based on the %DV, what nutrients is this product high in?

e. Based on the %DV, this product is low in what nutrients?



43. (15 points) Describe two meals. The first meal should be an example of one that will leave you feeling hungry shortly after you eat it. The second meal will leave you feeling “satisfied” longer. Explain what makes the two meals different and why you would feel satisfied longer with the second meal.

44. ( 5 points) Calculate fiber needs (in grams) for the following individuals. Show work.

a. 34 year old female who consumes 2100 calories a day

b. 22 year old male who consumes 2800 calories a day

45. (5 points) Calculate protein needs (in grams per kilogram) for the following individuals. Show work.

a. 28 year old pregnant female weighing 65 kg.

b. 42 year old male non athlete weighing 80 kg.

46. Match the following types of fat with the foods that are food sources of those fats.

\_\_\_\_\_\_\_ Avocado

\_\_\_\_\_\_\_ Stick margarine

\_\_\_\_\_\_\_ Corn oil

\_\_\_\_\_\_\_ salmon

\_\_\_\_\_\_\_ Whole milk

1. omega 3 fatty acids

2. omega 6 fatty acids

3. saturated fatty acids

4. trans fatty acids

5. monounsaturated fatty acids

45.