

科目：語文能力

系所組：營養科學系

26. The leading cause of blindness in the world today (not counting accidents) is a dietary deficiency of
- A. vitamin A
 - B. vitamin D
 - C. vitamin E
 - D. vitamin K
 - E. both a and c
27. Low density lipoproteins (LDL) are the principal transport vehicle for _____ in the blood.
- A. cholesterol
 - B. phospholipids
 - C. glucose
 - D. triglycerides
 - E. free fatty acids
28. Thiamin, niacin, and riboflavin work together in important biochemical pathways that
- A. release energy from carbohydrate, fat, and protein
 - B. control visual process
 - C. synthesize collagen
 - D. promote absorption of calcium
29. All B vitamins function as
- A. sources of energy
 - B. coenzymes
 - C. cofactors
 - D. enzymes
30. Scurvy is due to a deficiency of
- A. vitamin C
 - B. thiamin
 - C. folate
 - D. vitamin B-12
 - E. both a and d
31. Osteoporosis
- A. is caused by a dietary lack of vitamin D
 - B. indicates the person has been taking certain medications that interfere with normal bone metabolism
 - C. is a general term for a disease that results in reduced bone mass
 - D. is another name for osteomalacia
 - E. is caused by bone tumors

32. One consequence of insufficient intake of dietary carbohydrate is a condition called ketosis. Ketosis may result from
- A. starvation
 - B. a diet of less than 50 grams of carbohydrate per day
 - C. untreated diabetes mellitus
 - D. dehydration
 - E. a, b, and c
33. A diet high in fat, low in dietary fiber, and excess food energy may be an important contributing factor in the development of
- A. phytobezoars
 - B. dental caries
 - C. lactose intolerance
 - D. colon cancer
34. The RDA's are based on
- A. average requirements for a population
 - B. precise numbers derived from carefully controlled experiments
 - C. average needs, plus increased amounts sufficient to meet requirements for nearly all variability in the population
 - D. the fact that every nutrient must be consumed every day
35. As blood glucose levels increase, _____ is released by the pancreas to allow fat (adipose) and muscle cells to take up the extra sugar.
- A. cholecystokinin
 - B. cortisol
 - C. glucagon
 - D. insulin
 - E. epinephrine
36. By reducing Fe^{+3} to Fe^{+2} , nonheme iron is better absorbed. Which nutrient is associated with reducing iron?
- A. Phosphorus
 - B. Calcium
 - C. Vitamin A
 - D. Vitamin C
 - E. Pyruvic acid
37. The human brain and other nerve tissue use mostly _____ as fuel.
- A. galactose
 - B. glycogen
 - C. fructose
 - D. glucose
38. The foods most often contaminated with aflatoxins are
- A. cheeses made from unpasteurized milk
 - B. meats from wild animals such as bear and deer
 - C. fish and shellfish
 - D. wheat, corn, peanuts and tree nuts

39. Which of the following components of a meal is last to exit the stomach?
- A. carbohydrates
 - B. proteins
 - C. alcohol
 - D. fats
40. After a period of prolonged fasting (starving), nerve tissue changes its fuel requirements
- A. and glycogen becomes the primary source of energy
 - B. so that glycerol becomes the primary source of energy
 - C. and uses amino acids directly
 - D. so that ketone bodies replace glucose
41. Bulimia
- A. means episodes of eating binges, followed by attempts to purge food from the body
 - B. is difficult to identify since most bulimics try to keep their symptoms secret
 - C. unlike anorexia nervosa, is not a problem for men
 - D. and anorexia nervosa have symptoms that overlap
 - E. a, b, and d
42. Cross-contamination of foods occurs
- A. when perishable foods are kept at room temperature up to two hours
 - B. when two or more food handlers are working with the same food
 - C. when two or more different microorganisms are growing in the same food
 - D. when a utensil contaminated with a microorganism from a previously handled food is allowed to come in contact with a second food and contaminates it
43. A clinical symptom of iron-deficiency anemia is
- A. intolerance to cold temperatures
 - B. apathy
 - C. pale skin
 - D. fatigue
 - E. all of the above
44. The pellagra epidemic of the early part of this century confined many victims to
- A. mental institutions
 - B. to wheelchairs, they lost their ability to walk
 - C. wearing wigs as most lost their hair
 - D. wearing dentures, most lost all their teeth
45. Beta carotene is also called
- A. chlorophyll
 - B. retinoic acid, retinal or retinal
 - C. calcitriol
 - D. provitamin A
46. The maintenance of mucus forming cells depends on adequate amounts of
- A. vitamin K
 - B. vitamin C
 - C. vitamin A
 - D. vitamin D

47. Spinach has a very high iron content, but low bioavailability. The iron in spinach is in the form of
- A. elemental iron
 - B. myoglobin
 - C. nonheme iron
 - D. hemoglobin
48. Many green, leafy vegetables are high in dietary calcium, but the calcium is unavailable because
- A. it is absorbed and then reexcreted through the small intestine
 - B. the calcium is complexed to phytic acid so it can't be absorbed
 - C. bile acids carry the calcium out of the body by way of the feces (cont.)
 - D. the calcium is complexed to oxalic acid so it can't be absorbed
49. The most bioavailable form of dietary iron is
- A. heme iron
 - B. nonheme iron
 - C. elemental iron
 - D. both b and c
50. A reliable source of dietary iodide is
- A. iodide-fortified salt
 - B. seed oils
 - C. sea salt
 - D. freshwater fish

※ 注意：1. 考生須在「彌封答案卷」上作答。

2. 本試題紙空白部份可當稿紙使用。

3. 考生於作答時可否使用計算機、法典、字典或其他資料或工具，以簡章之規定為準。

科目： 營養學綜論

系所組： 營養科學系

1. 請論述膳食纖維的種類，食物來源及其保健功能性。(15%)
2. 請說明攝取葵花子油(sunflower oil)後的消化、吸收、血液運輸及脂肪細胞油脂能量代謝機轉。(15%)
3. 請說明以下評估食物蛋白質品質的指標:(10%)
 - (a) Protein efficiency ratio
 - (b) Biological value
 - (c) Chemical score
 - (d) Limiting amino acids
 - (e) Complementary protein
4. 請說明那些微量營養素缺乏會導致小球性貧血與其生化代謝作用。(10%)
5. 請解釋並說明下列營養相關的生化檢驗意義和可能的疾病診斷項目(15%)
(1)lactate dehydrogenase (2)creatine kinase (3)oral glucose tolerance test
6. 病人的臨床病歷內容繁多，做營養評估時，那些病史或治療可能會影響營養狀態、也和營養評估有關? 試列舉五項(15%)
7. 試解釋 serum albumin 在營養不良中扮演的生理角色和相關疾病? 其在體內水份調節上所扮演的角色為何? 其造成水腫的原因為何?(20%)

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