



قائمة الاسئلة 2025-05-20 07:07

الأغذية الوظيفية -الرابع-كلية الطب والعلوم الصحية- درجة الامتحان (70)

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- 1) What is the primary difference between nutraceuticals and functional foods?
  - 1) ☒ A) Nutraceuticals are in pill form, while functional foods are part of the regular diet.
  - 2) ☐ B) Functional foods are always fortified, while nutraceuticals are natural.
  - 3) ☐ C) Nutraceuticals are only derived from plants, while functional foods can be animal-based.
  - 4) ☐ D) Functional foods are only for weight loss, while nutraceuticals are for general health.
- 2) Which of the following is NOT a common category of functional foods based on composition?
  - 1) ☐ A) Dietary Fiber
  - 2) ☐ B) Probiotics and Prebiotics
  - 3) ☐ C) Phytochemicals
  - 4) ☒ D) Synthetic Additives
- 3) Which of the following is a source of omega-3 fatty acids?
  - 1) ☒ A) Salmon
  - 2) ☐ B) Chicken
  - 3) ☐ C) Rice
  - 4) ☐ D) Apples
- 4) What is the primary health benefit of probiotics?
  - 1) ☐ A) Lowering cholesterol
  - 2) ☒ B) Improving gut health
  - 3) ☐ C) Reducing blood sugar
  - 4) ☐ D) Enhancing bone density
- 5) Which of the following is a phytochemical with antioxidant properties?
  - 1) ☒ A) Vitamin C
  - 2) ☐ B) Calcium
  - 3) ☐ C) Iron
  - 4) ☐ D) Sodium
- 6) What is the main function of plant sterols in functional foods?
  - 1) ☐ A) Improve bone health
  - 2) ☒ B) Lower cholesterol
  - 3) ☐ C) Boost immune system
  - 4) ☐ D) Enhance cognitive function
- 7) Which of the following is a prebiotic?
  - 1) ☐ A) Yogurt
  - 2) ☒ B) Onions
  - 3) ☐ C) Salmon
  - 4) ☐ D) Eggs
- 8) What is the primary health benefit of flavonoids?
  - 1) ☐ A) Lowering blood pressure
  - 2) ☒ B) Antioxidant properties
  - 3) ☐ C) Improving bone density
  - 4) ☐ D) Reducing inflammation
- 9) What is the primary mode of action of antioxidants in functional foods?
  - 1) ☐ A) Reducing inflammation
  - 2) ☒ B) Neutralizing free radicals
  - 3) ☐ C) Lowering cholesterol
  - 4) ☐ D) Improving gut health





- 10) What is the primary health benefit of dietary fiber in functional foods?
- 1) - A) Improving digestion
  - 2) - B) Lowering blood sugar
  - 3) - C) Reducing cholesterol
  - 4) + D) All of the above
- 11) Which of the following is a source of omega-3 fatty acids?
- 1) - A) Citrus fruits
  - 2) + B) Fatty fish
  - 3) - C) Whole grains
  - 4) - D) Dark chocolate
- 12) Which of the following is a non-nutrient component of functional foods?
- 1) - A) Vitamin C
  - 2) - B) Selenium
  - 3) + C) Phenolic compounds
  - 4) - D) Folate
- 13) Which of the following is a bioactive compound found in nuts, seeds, and oils?
- 1) + A) Vitamin E
  - 2) - B) Omega-3 fatty acids
  - 3) - C) Lycopene
  - 4) - D) Quercetin
- 14) Which of the following is a probiotic bacteria?
- 1) + A) Lactobacillus
  - 2) - B) Salmonella
  - 3) - C) E. coli
  - 4) - D) Staphylococcus
- 15) Which of the following is a key component of oatmeal that reduces blood cholesterol?
- 1) + A)  $\beta$ -glucan
  - 2) - B) Phenols
  - 3) - C) Tannins
  - 4) - D) Omega-3 fatty acids
- 16) Which of the following is a health benefit of garlic?
- 1) - A) Increasing cholesterol levels
  - 2) + B) Reducing the risk of cancer
  - 3) - C) Decreasing immune system function
  - 4) - D) Increasing blood pressure
- 17) Which of the following is a health benefit of grape juice?
- 1) - A) Increasing cholesterol levels
  - 2) + B) Improving cardiovascular health
  - 3) - C) Decreasing calcium absorption
  - 4) - D) Increasing blood pressure
- 18) Which of the following is a source of soluble fiber?
- 1) - A) Whole wheat
  - 2) + B) Oats
  - 3) - C) Nuts
  - 4) - D) Leafy greens
- 19) Which of the following is a function of omega-3 fatty acids?
- 1) - A) Increases inflammation
  - 2) - B) Reduces heart health
  - 3) + C) Improves brain function



- 4) - D) Increases cholesterol levels
- 20) Which of the following is a function of prebiotics?
- 1) - A) Increases pathogenic bacteria
- 2) - B) Reduces immune function
- 3) + C) Enhances mineral absorption
- 4) - D) Increases cholesterol levels
- 21) Which of the following is a health benefit of soluble fiber?
- 1) - A) Increases blood sugar levels
- 2) + B) Helps control blood glucose
- 3) - C) Decreases calcium absorption
- 4) - D) Increases cholesterol levels
- 22) Which of the following is a source of terpenes?
- 1) - A) Coffee
- 2) + B) Citrus peels
- 3) - C) Garlic
- 4) - D) Broccoli
- 23) Which of the following is an example of an alkaloid?
- 1) - A) Curcumin
- 2) + B) Caffeine
- 3) - C) Quercetin
- 4) - D) Allicin
- 24) Which of the following is a natural source of phytochemicals?
- 1) - A) Processed meats
- 2) + B) Whole grains
- 3) - C) Sugary snacks
- 4) - D) White rice
- 25) Which of the following is a commercial source of phytochemicals?
- 1) - A) Fresh fruits
- 2) + B) Dietary supplements
- 3) - C) Raw vegetables
- 4) - D) Whole grains
- 26) Which of the following is a health benefit of phytochemicals related to heart health?
- 1) - A) Increase harmful cholesterol levels
- 2) - B) Reduce blood vessel function
- 3) + C) Lower levels of harmful cholesterol
- 4) - D) Increase inflammation
- 27) Which of the following is a source of alkaloids?
- 1) - A) Berries
- 2) + B) Coffee
- 3) - C) Garlic
- 4) - D) Broccoli
- 28) Which of the following is a function of alkaloids?
- 1) - A) Increase oxidative stress
- 2) + B) Act as stimulants
- 3) - C) Decrease immune function
- 4) - D) Increase cholesterol levels
- 29) Which of the following is a source of Vitamin C?
- 1) - A) Liver
- 2) + B) Oranges



- 3) - C) Egg yolks  
4) - D) Dairy products
- 30) Which of the following is a function of Vitamin D?
- 1) - A) Collagen production  
2) + B) Immune function  
3) - C) Antioxidant protection  
4) - D) Red blood cell formation
- 31) Which of the following is a symptom of Vitamin C deficiency?
- 1) - A) Night blindness  
2) + B) Scurvy  
3) - C) Pellagra  
4) - D) Beriberi
- 32) Which of the following is a function of Vitamin B12?
- 1) - A) Energy metabolism  
2) - B) Red blood cell formation  
3) - C) DNA synthesis  
4) + D) All of the above
- 33) Which of the following is a symptom of Vitamin D deficiency?
- 1) + A) Muscle weakness  
2) - B) Night blindness  
3) - C) Scurvy  
4) - D) Pellagra
- 34) Which of the following is a function of Vitamin E?
- 1) - A) Bone health  
2) - B) Antioxidant protection  
3) - C) Immune support  
4) + D) Both B and C
- 35) Which of the following is a symptom of Vitamin B1 (Thiamine) deficiency?
- 1) + A) Beriberi  
2) - B) Pellagra  
3) - C) Scurvy  
4) - D) Night blindness
- 36) Which of the following is a source of Vitamin D?
- 1) + A) Sunlight exposure  
2) - B) Citrus fruits  
3) - C) Leafy green vegetables  
4) - D) Nuts and seeds
- 37) Which of the following is a symptom of Vitamin E deficiency?
- 1) - A) Night blindness  
2) + B) Neurological problems  
3) - C) Scurvy  
4) - D) Pellagra
- 38) Which of the following is a function of Vitamin B6 (Pyridoxine)?
- 1) - A) Amino acid metabolism  
2) - B) DNA synthesis  
3) - C) Red blood cell formation  
4) + D) All of the above
- 39) Which of the following is a symptom of Vitamin B12 deficiency?
- 1) + A) Pernicious anemia



- 2) - B) Night blindness  
3) - C) Scurvy  
4) - D) Pellagra
- 40) Which of the following is a source of Vitamin B12?
- 1) - A) Citrus fruits  
2) + B) Animal products  
3) - C) Leafy green vegetables  
4) - D) Nuts and seeds
- 41) Which of the following is a function of Folate (Vitamin B9)?
- 1) - A) DNA synthesis  
2) - B) Red blood cell formation  
3) - C) Fetal development  
4) + D) All of the above
- 42) 2. Which of the following is NOT a biological activity of nutraceuticals?
- 1) - a) Antioxidant defenses  
2) - b) Cell proliferation  
3) - c) Gene expression  
4) + d) Increasing pathogenic bacteria
- 43) Which of the following is a primary source of EPA and DHA omega-3 fatty acids?
- 1) - a) Nuts  
2) - b) Whole grains  
3) + c) Marine fatty fish  
4) - d) Citrus fruits
- 44) Which of the following is a vegetarian source of omega-3 fatty acids?
- 1) - a) Salmon  
2) + b) ALA (found in vegetables)  
3) - c) Chicken  
4) - d) Eggs
- 45) Which of the following is a role of omega-3 fatty acids in the immune system?
- 1) - a) Decreasing cytokine synthesis  
2) + b) Impacting immune cell functions  
3) - c) Reducing phagocytosis capability  
4) - d) Promoting inflammation
- 46) Which of the following is a role of omega-3 fatty acids in the immune system?
- 1) - a) Decreasing cytokine synthesis  
2) + b) Impacting immune cell functions  
3) - c) Reducing phagocytosis capability  
4) - d) Promoting inflammation
- 47) Which of the following is a benefit of DHA consumption?
- 1) - a) Increasing cognitive decline  
2) + b) Delaying cognitive decline in neurodegenerative disorders  
3) - c) Reducing neurodevelopment in infants  
4) - d) Promoting cardiac arrhythmias
- 48) Which of the following is a health benefit of conjugated linoleic acid (CLA)?
- 1) - a) Increasing body weight  
2) - b) Promoting atherosclerosis  
3) + c) Lowering plasma cholesterol levels  
4) - d) Decreasing bone health
- 49) Which of the following is a health benefit of phytosterols?



- 1) - a) Increasing LDL cholesterol
  - 2) - b) Reducing immune system modulation
  - 3) - c) Promoting cancer growth
  - 4) + d) Decreasing total cholesterol
- 50) Which of the following is a role of omega-3 fatty acids in fetal development?
- 1) + a) Improving neurodevelopmental outcomes
  - 2) - b) Decreasing neurodevelopmental outcomes
  - 3) - c) Promoting cognitive decline
  - 4) - d) Reducing brain health
- 51) What is a primary safety concern regarding the overconsumption of fat-soluble vitamins in functional foods?
- 1) - a) They are easily excreted from the body
  - 2) + b) They can accumulate and cause toxicity
  - 3) - c) They have no adverse effects
  - 4) - d) They are only harmful in low doses
- 52) Which of the following is a potential risk during the production of functional foods?
- 1) - a) Increased vitamin content
  - 2) + b) Contamination with heavy metals
  - 3) - c) Enhanced nutrient absorption
  - 4) - d) Improved flavor
- 53) What is a key concern regarding the introduction of novel bioactive ingredients in functional foods?
- 1) - a) They are always safe for everyone
  - 2) - b) They are more expensive
  - 3) - c) They are less effective than traditional ingredients
  - 4) + d) They may trigger allergic reactions
- 54) What is a potential adverse effect of excessive vitamin A intake?
- 1) - a) Improved vision
  - 2) + b) Liver damage
  - 3) - c) Increased energy levels
  - 4) - d) Enhanced immune function
- 55) Which of the following is an example of bioaccumulation in functional foods?
- 1) + a) Heavy metals like lead accumulating in the body
  - 2) - b) Vitamin C being excreted quickly
  - 3) - c) Fiber being digested easily
  - 4) - d) Probiotics being destroyed by heat
- 56) What paradoxical effect was observed with beta-carotene supplementation in smokers?
- 1) - a) Reduced risk of lung cancer
  - 2) + b) Increased risk of lung cancer
  - 3) - c) Improved lung function
  - 4) - d) No effect on lung health
- 57) How do polyphenols in tea affect iron absorption?
- 1) - a) They enhance iron absorption
  - 2) - b) They only affect heme iron absorption
  - 3) - c) They have no effect on iron absorption
  - 4) + d) They inhibit the absorption of non-heme iron
- 58) What is the effect of high calcium levels on omega-3 absorption?
- 1) - a) They enhance omega-3 absorption
  - 2) + b) They compete with omega-3 absorption
  - 3) - c) They have no effect on omega-3 absorption
  - 4) - d) They only affect omega-6 absorption



- 59) What is the relationship between zinc and copper absorption in the body?
- 1) - a) Zinc enhances copper absorption
  - 2) ☒ b) Zinc and copper compete for absorption
  - 3) - c) Copper inhibits zinc absorption
  - 4) - d) They have no interaction
- 60) How does vitamin D affect calcium absorption?
- 1) - a) It inhibits calcium absorption
  - 2) ☒ b) It enhances calcium absorption
  - 3) - c) It has no effect on calcium absorption
  - 4) - d) It only affects magnesium absorption
- 61) What is a potential interaction between St. John's Wort and birth control pills?
- 1) - a) It enhances the effectiveness of birth control pills
  - 2) - b) It only affects antibiotics
  - 3) - c) It has no effect on birth control pills
  - 4) ☒ d) It reduces the efficacy of birth control pills
- 62) Why should patients avoid grapefruit juice when taking certain medications?
- 1) ☒ a) It inhibits cytochrome P450 enzymes, leading to higher drug concentrations
  - 2) - b) It enhances drug metabolism
  - 3) - c) It has no effect on drug metabolism
  - 4) - d) It only affects over-the-counter medications
- 63) What is the effect of high-temperature processing on probiotics in functional foods?
- 1) - a) It enhances probiotic activity
  - 2) ☒ b) It degrades probiotics, reducing their effectiveness
  - 3) - c) It has no effect on probiotics
  - 4) - d) It only affects prebiotics
- 64) How does fermentation affect the bioavailability of nutrients in functional foods?
- 1) - a) It decreases bioavailability
  - 2) - b) It has no effect on bioavailability
  - 3) ☒ c) It enhances bioavailability
  - 4) - d) It only affects the taste of food
- 65) What is the primary advantage of non-thermal processing techniques like PEF (Pulsed Electric Fields)?
- 1) - a) They increase heat damage to food
  - 2) ☒ b) They preserve bioactive compounds and nutrients
  - 3) - c) They are less effective than thermal methods
  - 4) - d) They only work for liquid foods
- 66) What does the GRAS status designated by the FDA indicate?
- 1) - a) The ingredient is unsafe for consumption
  - 2) ☒ b) The ingredient is generally recognized as safe
  - 3) - c) The ingredient requires pre-market approval
  - 4) - d) The ingredient is only safe in small doses
- 67) What is a major challenge in the regulation of functional foods across different countries?
- 1) ☒ a) Lack of harmonization in standards and guidelines
  - 2) - b) Over-regulation by all countries
  - 3) - c) Lack of scientific evidence
  - 4) - d) High cost of regulation
- 68) What is the first step in the risk assessment of functional foods?
- 1) - a) Dose-response assessment
  - 2) ☒ b) Hazard identification
  - 3) - c) Exposure assessment



- 4) - d) Risk characterization
- 69) What is the final step in the risk assessment process for functional foods?
- 1) - a) Hazard identification
- 2) - b) Dose-response assessment
- 3) - c) Exposure assessment
- 4) + d) Risk characterization
- 70) 1. Which of the following is a health benefit of insoluble fiber?
- 1) - A) Increases blood sugar levels
- 2) + B) Reduces risk of colorectal cancer
- 3) - C) Decreases calcium absorption
- 4) - D) Increases cholesterol levels