

系級	科目	授課教師	考試日期	學號	姓名
公	普通化學	林淑芳	90年1月11日第3-4節		

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 ②每張試題卷務必填寫(學號)、(姓名)。

教務處公佈專用

Choice The Best One:

1. An example of a condensation polymer is:
 - a. polystyrene
 - b. poly(vinyl chloride)
 - c. polyethylene
 - d. polyisoprene
 - e. starch

2. The maximum alcohol concentration in the preparation of ethanol by fermentation of grapes or other fruit is
 - a. 50-60%
 - b. 12%
 - c. 100%
 - d. 95%

3. Ethylene glycol, a dialcohol, is the main ingredient in
 - a. tobacco humectants
 - b. antifreeze
 - c. denaturated alcohol
 - d. gasohol

4. Melanin is:
 - a. the dark pigment of the skin
 - b. an essential amino acid
 - c. a vitamin
 - d. a food additive
 - e. an enzyme essential to the digestion of protein

5. A characteristic functional group present in all the monomers leading to addition polymerization is
 - a. OH
 - b. CHO
 - c. C=C
 - d. C-Cl

6. Vegetable oils and fish oils differ from animal fats primarily in that the vegetable and fish oils contain more:
 - a. carbon-carbon double bonds
 - b. oxygen atoms
 - c. glycerol units
 - d. nitrogen atoms
 - e. peptide bonds

7. Which is the most commonly recycled plastic?
 - a. HDPE
 - b. PET
 - c. PS
 - d. LDPE

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(二)	普通化學	林淑貞	____年____月____日第____節		

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8. Digestion converts carbohydrates into
 - a. amino acids
 - b. fatty acids
 - c. CO₂ and H₂O
 - d. monosaccharides

9. Cholesterol that is present in the blood serum is closely associated with:
 - a. overactive kidneys
 - b. hardening of the arteries
 - c. diabetes
 - d. osteoporosis
 - e. night blindness

10. To determine your personal BMR (in kcal per hour), multiply your
 - a. age by 10
 - b. weight by 10
 - c. age by your weight by 10
 - d. age by 20

11. How does an antioxidant such as BHT work in foods?
 - a. it kills bacteria
 - b. it donates a hydrogen atom to free radicals
 - c. it surrounds metal ions and deactivates them
 - d. it reacts with oxygen and thus prevents oxygen from reacting with fats

12. Citric acid is a sequestrant in foods. As a sequestrant its principal function is to
 - a. neutralize bases
 - b. complex oxygen
 - c. keep foods moist
 - d. tie up metal ions and prevent their catalytic effects

13. The acceptable daily intake of a food additive is generally taken as:
 - a. the maximum level that shows no effect on laboratory animals
 - b. the minimum level that shows no effect on laboratory animals
 - c. 100 times the minimum level that shows no effect on laboratory animals
 - d. 1/100 the maximum level that shows no effect on laboratory animals
 - e. 1/100 the level that shows no effect on 50% of the laboratory animals

14. Heavy metals act as poison because they
 - a. oxidizer cellular tissue
 - b. inactivate enzymes with SH groups
 - c. form complexes with cytochrome oxidase
 - d. hydrolyze amygdalin releasing toxic levels of HCN

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15. Heating a red-orange mixture of a vegetable oil and tincture of iodine causes the disappearance of the color because:
 - a. the iodine adds to the double bonds of the oil's side chains
 - b. the vegetable oil undergoes hydrolysis to a soap and glycerol
 - c. the iodine converts the triester to a hydrocarbon
 - d. the oil becomes hydrogenated to a saturated fat
 - e. the iodine converts the oil to a colorless carbohydrate

16. A substance is optically active if it:
 - a. produces polarized light
 - b. absorbs polarized light
 - c. rotates the plane of polarized light
 - d. converts polarized light into unpolarized light
 - e. converts unpolarized light into polarized light

17. Four cholinesterase poisons are shown below, along with their LD₅₀ value for rats. Pick the one which is probably most toxic to humans.
 - a. paroxon, LD₅₀ = 1.8 mg per kg
 - b. sevin, LD₅₀ = 400 mg per kg
 - c. parathion, LD₅₀ = 20 mg per kg
 - d. malathion, LD₅₀ = 885 mg per kg

18. Walking expends energy at an average rate of about 5 Calories per minute. To burn up the energy provided by a serving of ice cream that contains 17 g of carbohydrate, 3 g of protein and 9 g of fat, a person would have to walk:
 - a. 23.2 minutes
 - b. 26.2 minutes
 - c. 32.2 minutes
 - d. 40.2 minutes
 - e. 52.2 minutes

19. An example of a disaccharide is:
 - a. sucrose
 - b. galactose
 - c. dextrose
 - d. D-glyceraldehyde
 - e. fructose.

20. Sucrose (table sugar) provides the body with:
 - a. galactose and fructose
 - b. galactose and glucose
 - c. glycine and fructose
 - d. glycine and glucose
 - e. glucose and fructose

21. A teratogen is a substance that produces:
 - a. severe birth defects
 - b. liver cancer
 - c. high blood pressure
 - d. dental cavities
 - e. loss of calcium from the bones and teeth

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22. Nitrites in food present a possible hazard of cancer because of the probable formation of:
 - a. toxic carbohydrates
 - b. N-nitrosamines
 - c. poisonous oxides of nitrogen
 - d. short chain carboxylic acids
 - e. cholesterol

23. The principal benefit gained by the addition of nitrites to processed meat is protection against the:
 - a. growth of Clostridium botulinum
 - b. oxidation of triglycerides
 - c. degradation of meat protein
 - d. formation of toxic carbohydrates
 - e. formation of unacceptable odors and tastes in the meat

24. The LD50 of a certain chemical is 10g/kg, orally in rats. This means that:
 - a. 10 g of the substance will kill 50 1 kg rats
 - b. 10 g of the substance will kill a 1 kg rat in 50 days
 - c. 10 g of the substance will kill 50% of a large group of 1 kg rats
 - d. 50 g of the substance will kill a 1 kg rat if eaten in 10 g portions
 - e. 50 1 kg rats can eat 10 g of the substance without ill effects

25. Amino acids show unusual chemical behavior, especially because they:
 - a. contain the elements carbon, hydrogen, oxygen and nitrogen
 - b. contain the amide functional group
 - c. are all chiral
 - d. are all found in living organisms
 - e. contain both an acidic and a basic functional group on the same molecule

26. Dietary β -carotene supplies humans with:
 - a. ascorbic acid
 - b. phenylalanine
 - c. phosphorus
 - d. retinol
 - e. vitamin D

27. A lactase deficiency leads to difficulties in digesting:
 - a. sugar
 - b. starch
 - c. meat and eggs
 - d. fruit
 - e. milk and milk products

28. The food additive associated with the "Chinese restaurant syndrome" is:
 - a. aspartame
 - b. calcium propionate
 - c. monosodium glutamate
 - d. mono- and diglycerides
 - e. sodium nitrite

私立臺北醫學院 89 學年度第 1 學期 期中 考試 (命) 題紙

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29. A chemical used to inhibit the growth of microorganisms in acidic foods is:
 a. calcium propionate
 b. calcium silicate
 c. EDTA
 d. MSG
 e. sodium benzoate
30. A chemical that is not an antioxidant itself, but is used to inhibit the oxidation of foods is:
 a. ascorbic acid
 b. calcium propionate
 c. EDTA
 d. NaCl
 e. NaNO₂

Answers:

1.	7.	13	19	25
2.	8	14	20	26
3.	9	15	21	27
4.	10	16	22	28
5.	11	17	23	29
6.	12	18	24	30