

1. 下列生命特征中何者进行的时间为最长?

Which of the following characteristics of life takes longest time?

- (a) 新陈代谢 metabolism
- (b) 生长 growth
- (c) 生殖 reproduction
- (d) 演化 evolution
- (e) 反应 response

2. 脂类除了有比较 \_\_\_\_\_ 的比例外, 其化学结构与碳水化合物相似。

Lipids are like carbohydrates except that lipids have proportionately \_\_\_\_.

- (a) 多碳 more carbon
- (b) 少氧 less oxygen
- (c) 少碳 less carbon
- (d) 多氢 more hydrogen
- (e) a 与 b 皆对 both a and b

3. 下列何者不是扩散作用的正确说明。

Which of the following statements is not true about diffusion?

- (a) 扩散方向受浓度梯度的控制  
The direction of diffusion is controlled by the concentration gradients
- (b) 分子的大小对扩散的速率没有影响  
The size of molecules has no effect on the rate of diffusion
- (c) 温度升高增加扩散的速率  
Increase in temperature increases the rate of diffusion
- (d) 细胞膜的细孔控制某种物质是否可以进入细胞  
Pores in the membranes of cells control whether or not some substances can enter a cell
- (e) 扩散作用可在气体、液体或固体中进行  
Diffusion can take place in gases, liquids or solids

4. 下列何种化学物含有最多的能量?

Which of the following has the most energy?

- (a) ATP 分子 a molecule of ATP
- (b) 磷酸甘油酸分子 a molecule of phosphoglyceric acid
- (c) 甘油醛磷酸分子 a molecule of phosphoglyceraldehyde
- (d) 葡萄糖分子 a molecule of glucose
- (e) 丙酮酸分子 a molecule of pyruvic acid

5. DNA 分子结构决定 \_\_\_\_。
- DNA molecules determine \_\_\_\_.
- (a) 蛋白质中的氨基酸的排列顺序  
the sequence of amino acids in a protein
  - (b) 蛋白质中某氨基酸的位置  
the position of an amino acid in a protein
  - (c) 蛋白质中氨基酸的总数目  
the number of amino acids in a protein
  - (d) 合成蛋白质的起点、终点及其长度  
the start, end and length of a protein
  - (e) 以上皆是  
all of the above
6. 人类的伴性基因是 \_\_\_\_。
- A sex-linked gene in humans is one that \_\_\_\_.
- (a) 只表现在单一性别  
shows up in only one sex
  - (b) 是在 X 染色体位置上  
is located on the X chromosome
  - (c) 不会出现在女性  
does not occur in females
  - (d) 只由父亲传给儿子  
is only transmitted from father to son
  - (e) 与初级及次级的性特征有关  
is related to the primary and second sex characteristics
7. 小的种群 \_\_\_\_。
- Small populations \_\_\_\_.
- (a) 在演化中没有角色  
have no role in evolution
  - (b) 与大的种群有相同比例的基因库  
have the same relative gene pool as large populations
  - (c) 通常是在稳定状态中  
are always stable
  - (d) 允许在演化过程中有机会进行  
allow chance to operate in evolution
  - (e) 以上皆非  
none of the above

8. 拥有最多物种数目的族群是\_\_\_\_\_。

The group with the greatest number of species is the \_\_\_\_\_.

- (a) 兰花 orchids
- (b) 细菌 bacteria
- (c) 甲虫 beetles
- (d) 鸟类 birds
- (e) 海绵 sponges

9. 绿藻门\_\_\_\_\_。

The chlorophyta or green algae \_\_\_\_\_.

- (a) 以碳水化合物形式储存食物  
store their food in the form of carbohydrates
- (b) 有由纤维素所组成的细胞壁  
have cell walls composed of cellulose
- (c) 是陆上植物的先驱  
are the precursors of land plants
- (d) 含有叶绿素 a 和 b  
contain chlorophyll a and b
- (e) 以上皆是  
all of the above

10. 授粉作用在\_\_\_\_\_中进行。

Pollination takes place on the \_\_\_\_\_.

- (a) 花柱 style
- (b) 花托 receptacle
- (c) 花药 anther
- (d) 胚珠 ovule
- (e) 柱头 stigma

11. 胚胎开始可识别为人的样子时是在怀孕后\_\_\_\_\_。

The embryo is first recognizable as a human \_\_\_\_\_ of pregnancy.

- (a) 第一个月内 during the first month
- (b) 第二个月内 during the second month
- (c) 第三个月内 during the third month
- (d) 第四个月内 during the fourth month
- (e) 第四个月后 after the fourth month

12. 下列何種組織不屬於結締組織？

Which of the following is not considered a connective tissue?

- (a) 硬骨 bone
- (b) 血液 blood
- (c) 軟骨 cartilage
- (d) 韌帶 ligaments
- (e) 肌肉 muscles

13. 下列何種營養素在經過新陳代謝後產生最大量的有毒化學物？

Which of the following classes of nutrients produce the largest amounts of toxic compounds when broken down during metabolism?

- (a) 碳水化合物 carbohydrates
- (b) 脂肪 fats
- (c) 膽固醇 cholesterol
- (d) 蛋白質 proteins
- (e) 維生素 vitamins

14. 下列何種血管是有最低的血壓？

In which of the following vessels is the blood pressure lowest?

- (a) 頭部的動脈 arteries in the head
- (b) 頭部的小動脈 arterioles in the head
- (c) 微血管 capillaries
- (d) 頭部的小靜脈 venules in the head
- (e) 頭部的靜脈 veins in the head

15. 人類唾液可執行下列的功力，除了

Human saliva performs all of the following functions except

- (a) 食物的潤滑 lubricating food
- (b) 酸性食物的中和 neutralizing food acids
- (c) 控制細菌种群 controlling bacteria populations
- (d) 將淀粉水解為葡萄糖 hydrolyzing starch to glucose
- (e) 將蛋白質水解為多肽 hydrolyzing proteins to polypeptides

16. 在体免疫中出现继发反应是当记忆细胞与 \_\_\_\_\_ 结合。

The secondary response in humoral immunity occurs when memory cells binds to \_\_\_\_.

- (a) 特定的激素      particular hormones
- (b) 特定的抗体      particular antibodies
- (c) 抗原              antigens
- (d) 浆细胞            plasma cells
- (e) 特实的克隆体    particular clones

17. 下列何种反应是因为交感神经系统的活化而产生的？

Which of the following effects could result from activation of the sympathetic nervous system?

- (a) 降低血压            decreased blood pressure
- (b) 降低心跳速率      decreased heart rate
- (c) 降低消化速率      decreased rate of digestion
- (d) 支气管的收缩      constriction of the bronchi
- (e) 降低呼吸频率      decreased rate of breathing

18. 人类脑中那部位负责身体移动时的详细协调工作？

What part of the human brain is responsible for detailed coordination of movements?

- (a) 视丘                thalamus
- (b) 下视丘            hypothalamus
- (c) 延髓和脑桥      medulla oblongata and pons
- (d) 大脑                cerebrum
- (e) 小脑                cerebellum

19. 肌肉的基本功能是要\_\_\_\_\_。

The primary functions of muscles is to \_\_\_\_\_.

- (a) 燃烧食物分子  
burn food molecules
- (b) 转换化学能为机械能  
convert chemical energy to mechanical energy
- (c) 将骨骼连接  
hold the skeleton together
- (d) 产生身体热量维持体内平衡  
generate body heat to maintain homeostasis
- (e) 以上皆是  
all of the above

20. 最大存活的植物物种是\_\_\_\_\_。

The vast majority of living plant species are

- (a) 苏铁植物      cycads
- (b) 裸子植物      gymnosperms
- (c) 双子叶植物    dicots
- (d) 单子叶植物    monocots
- (e) 苔藓植物      mosses

21. 打架比较会出现在 \_\_\_\_\_ 之间。

Fighting is more likely to occur between

- (a) 同一物种中的男性  
males of the same species
- (b) 不同物种中的男性  
males of different species
- (c) 同一物种中的女性  
females of the same species
- (d) 不同物种中的男性  
females of different species
- (e) 同一物种中的男性和女性  
males and females of the same species

22. 在下列何种天气的环境下，植物的蒸散作用是最迅速的？

Under which of the following weather conditions would transpiration be most rapid?

- (a) 下雨天              rainy weather
- (b) 热和潮湿的天气    hot, humid weather
- (c) 冷和潮湿的天气    cold, humid weather
- (d) 热和干燥的天气    hot, dry weather
- (e) 大风和下雨的天气    windy, wet weather

23. 如果一个生态系统对某一物种可接受容量的个体数是 1000，现在有 2000 个体存在时，这物种的种群会

If an ecosystem has a carrying capacity of 1000 individuals for a given species, and 2000 individuals of that species are present, the population

- (a) 是达到平衡  
is at equilibrium
- (b) 大幅度下降  
will decline dramatically
- (c) 表现成一团分散的结构  
will show a clumped dispersion pattern
- (d) 表现成均匀分散的结构  
will show an uniform dispersion pattern
- (e) 缓慢的增加  
will slowly increase

24. 在一个理论食物链中包含草、蚱蜢、麻雀和鹰时，蚱蜢是

In a hypothetical food chain consisting of grass, grasshoppers, sparrows, and hawks, the grasshoppers are

- (a) 初级消费者 primary consumers
- (b) 初级生产者 primary producers
- (c) 次级消费者 secondary consumers
- (d) 次级生产者 secondary producers
- (e) 屑食者 detritivores

25. 在煎炸方面所用的食用油最好的是:

The best cooking oil for deep fried is:

- (a) 玉米油 Corn oil
- (b) 大豆油 Soybean oil
- (c) 花生油 Ground nut oil
- (d) 棕油 Palm oil
- (e) 橄欖油 Olive oil