

臺灣綜合大學系統 108 學年度學士班轉學生聯合招生考試試題

科目名稱	普通植物學	類組代碼	A05
		科目碼	A0501

※本項考試依簡章規定各考科均「不可以」使用計算機 本科試題共計 2 頁

單選題 20 題

請於答案卷上作答，否則不予計分

Five points for each:

**1. How can plants affect the Earth's surface-temperature directly?**

- [A] absorbing carbon dioxide. [C] releasing carbon dioxide with respiration.  
[B] releasing free oxygen. [D] absorbing light by photosynthesis.

**2. Organelles each possess a unique selectively permeable membrane that ensures ordered metabolic reactions. Which of following is not an organelle?**

- [A] vacuoles. [B] plasmid. [C] chloroplast. [D] plastid.

**3. When DNA is synthesized during replication?**

- [A] G1 of interphase. [C] S of interphase  
[B] G1 of prophase. [D] S of prophase.

**4. Where you can find the single membrane on the followings?**

- [A] nuclear envelope [B] mitochondria [C] tonoplast  
[D] plasmid

**5. The major type of tissue found in the surface of foliage leaves is:**

- [A] parenchyma. [B] xylem. [C] phloem. [D] epidermis.

**6. In a foliage leaf, the majority of CO<sub>2</sub> absorption occurs in the:**

- [A] upper epidermis. [D] spongy mesophyll.  
[B] palisade parenchyma. [E] lower epidermis.  
[C] bundle sheath parenchyma.

**7. Veins with a bundle sheath in eudicot leaves are not involved in:**

- [A] conduction. [C] nitrogen relocation [E] sugar loading.  
[B] support. [D] water release.

**8. A root is not uniform along its length but has distinct zones. Starting at the tip, what is the right order of these zones of the following?**

- [1]zone of elongation, [2]apical meristem, [3]zone of maturation/root hairs, [4] root cap.  
[A] 1234 [B] 4213 [C] 4321 [D] 3412 [E] 3241

**9. The downward direction of root growth in response to gravity is more related to the synthesis of which materials?**

- [A] protein. [B] lipid. [C] starch. [D] DNA. [E] cellulose.

**10. How herbaceous plants can increase their conduction capacity?**

- [A] more additional leaves. [C] less secondary tissues. [E] more contractile roots.  
[B] less storage roots. [D] more adventitious roots.

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11. The major part for starch storage in rice grains are the:

- [A] cotyledons. [C] embryo. [E] hypocotyl.  
 [B] epicotyl. [D] endosperm.

12. Which organelle is not involved in photorespiration?

- [A] chloroplasts. [C] peroxisomes.  
 [B] mitochondria. [D] endoplasmic reticulum

13. The initial event that leads to the opening of stomatal pores around sun rises by lowering the water potential in the guard cells is:

- [A] water into guard cells [D] diffusion of  $K^+$  into guard cells  
 [B] water out of guard cells [E] synthesis of glucose  
 [C] active transport of  $K^+$  into guard cells

14. The conversion of  $N_2$  into ammonia is called:

- [A] nitrogen reduction. [C] nitrogen assimilation. [E] nitrogen fixation.  
 [B] nitrate reduction. [D] denitrification.

15. Which of the following plant hormone that was discovered first in Taiwan?

- [A] Gibberellin [C] Abscisic acid [E] Cytokinin  
 [B] Auxin [D] Ethylene

16. the purpose of roasting malted barley is to:

- [A] "refinement" the grain. [B] to produce wine. [C] to kill the germ.  
 [D] for human consumption.

17. What kind of medicine can be extracted from willow bark:

- [A] ipecac syrup. [C] morphine. [E] quinine.  
 [B] salicylic acid. [D] digitoxin.

18. Which crops are not harvested for sucrose, glucose, and fructose:

- [A] sugar cane [B] maple trees [C] sweet potatoes [D] sugar beets

19. If you examine a root tip, you would find most of the cells in:

- [A] anaphase. [B] telophase. [C] metaphase. [D] interphase. [E] prophase

20. Which of the following can be found the symptoms of nutrient deficiency?

- [A] A plant growing in a tropical rain forest with associated mycorrhizae  
 [B] Cacti growing in the desert  
 [C] A crop plant growing in a field that has been cultivated for many years  
 [D] An aquatic plant growing in lake sediments