

## 30 Multiple choice questions

---

1. an organelle responsible for the manufacture of proteins
  - a. rumen
  - b. ribosome
  - c. tissue
  - d. phloem
  
2. the ability of a device such as a microscope to produce a clear image
  - a. resolution
  - b. transpiration
  - c. respiration
  - d. translocation
  
3. a biochemical consisting of a phosphate group attached to a lipid; major component of the cell or plasma membrane
  - a. protein
  - b. phospholipid
  - c. photosynthesis
  - d. phloem
  
4. the evaporation of water through the pores of a plant
  - a. translocation
  - b. transpiration
  - c. respiration
  - d. resolution
  
5. opening to the exoskeleton of the breathing tubes in insects
  - a. spiracles
  - b. tracheae
  - c. specialise
  - d. respiration
  
6. a combination of a radioisotope and a pharmaceutical that ensures the substance moves to the appropriate organ so that medical diagnosis can occur or movement of substances be traced
  - a. transpiration
  - b. radiopharmaceutical
  - c. respiration
  - d. radioisotope

7. applied science
  - a. vacuoles
  - b. tracheoles
  - c. phloem
  - d. technology
  
8. the fine endings of the tracheae in insects and arthropods that come into contact with their internal cells and allow exchange of gases
  - a. vacuoles
  - b. tracheoles
  - c. spiracles
  - d. tracheae
  
9. part of the vascular bundle, made up of tracheids; responsible for the transport of water and mineral salts
  - a. vacuoles
  - b. phloem
  - c. rumen
  - d. xylem
  
10. the theory that living cells could arise from non-living matter; now discredited
  - a. transpiration
  - b. spontaneous generation
  - c. respiration
  - d. translocation
  
11. living or growing on land
  - a. resolution
  - b. tracheae
  - c. terrestrial
  - d. protein
  
12. the set of organs, including lungs or gills, responsible for the exchange of gases in vertebrates
  - a. respiratory system
  - b. spiracles
  - c. transpiration
  - d. respiration

13. the tubes that assist gaseous exchange in insects and other arthropods
  - a. tracheae
  - b. protein
  - c. starch
  - d. tracheoles
  
14. the large chamber in the stomach of ruminants into which food is initially swallowed and where fermentation occurs
  - a. protein
  - b. rumen
  - c. ruminant
  - d. xylem
  
15. the surface area divided by the volume; relates to the efficiency of the exchange of materials or heat
  - a. surface area/volume ratio
  - b. spontaneous generation
  - c. resolution
  - d. tracheoles
  
16. the pores in plant leaves with guard cells, responsible for the exchange of gases and the loss of water through transpiration
  - a. starch
  - b. rumen
  - c. stomata
  - d. tissue
  
17. part of the vascular bundle in plants, responsible for the transport of sugars
  - a. xylem
  - b. rumen
  - c. protein
  - d. phloem
  
18. a group of cells or cell products that form a definite structural material in a plant or animal
  - a. stomata
  - b. tissue
  - c. ribosome
  - d. reticulum

19. the process by which sugars and other organic molecules are transported within the phloem of plants
  - a. resolution
  - b. transpiration
  - c. translocation
  - d. respiration
  
20. the process by which plants make their own food using carbon dioxide, water and sunlight, in the presence of chlorophyll
  - a. phloem
  - b. protein
  - c. phospholipid
  - d. photosynthesis
  
21. a form of an element in which the atoms are unstable and emit radiation in the form of alpha and/or beta particles and/or gamma rays
  - a. radioisotope
  - b. transpiration
  - c. resolution
  - d. ribosome
  
22. a white, insoluble form of carbohydrate that occurs in plant parts such as seeds, grains and tubers
  - a. starch
  - b. spiracles
  - c. xylem
  - d. stomata
  
23. the second chamber of the ruminant stomach where food is processed into cud, which is eventually regurgitated and rechewed
  - a. reticulum
  - b. ruminant
  - c. resolution
  - d. tissue
  
24. relatively large organelles that can expand enormously to hold watery liquid or secretions
  - a. vacuoles
  - b. tracheoles
  - c. xylem
  - d. phloem

25. specialised epidermal cells located behind the root tip
- reticulum
  - root hair cells
  - procaryotic cells
  - spiracles
26. a herbivore with a specialised digestive system, including several chambers to the stomach to promote the fermentation and digestion of plant material
- stomata
  - rumen
  - protein
  - ruminant
27. the process by which living organisms obtain energy by using glucose and oxygen and producing carbon dioxide, water and energy
- respiration
  - resolution
  - translocation
  - transpiration
28. an organic compound made up of amino acid units and is essential for growth, repair and life processes
- phloem
  - protein
  - rumen
  - tracheae
29. to develop characteristics for special purposes
- vacuoles
  - reticulum
  - spiracles
  - specialise
30. cells without a nucleus, organelles or internal membranes e.g. bacteria
- photosynthesis
  - procaryotic cells
  - root hair cells
  - tracheoles