



College entrance exam and science high school entrance test tips. Conquer UPCAT, ACET, USTET, DLSUCET, PSHS-NCE, and other entrance tests.

SCIENCE PROFICIENCY (Biology)

Directions: For each statement or question, choose the letter of the word or expression that, of those given, best completes or answers the question. Then on your answer sheet, blacken the circle that corresponds to your final answer.

BEGIN HERE:

1. Which best describes the composition of the human body?
 - a. cells → organs → parts → system
 - b. organs → tissue → system
 - c. cells → tissues → organs → system
 - d. bones → muscle → skin → system

2. Photosynthesis is the process by which plants manufacture their own food. At what form do the products of photosynthesis stored?

a. fruits	c. bulbs
b. starch	d. root crops

3. Most plants are not suitable for human consumption. This is because we do not possess the ability to digest them properly. Why is this so?
 - a. They are poisonous.
 - b. We can't chew them properly.
 - c. They have a high concentration of cellulose
 - d. Plants have an anti-digestion substance in them

4. Plants give off oxygen as a by product of photosynthesis. While human beings and animals gives off carbon dioxide. What symbiotic relationship occurs between the two?

a. commensalism	c. realism
b. mutualism	d. parasitism

For nos. 5 and 6, Refer to the passage below.

Rice, the staple food of many Filipinos, could be categorized to belong in:

Kingdom – Plantae
Phylum – Anthophyta

Science II

- 1 -

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Class – Monocotyledonae

Order – Glumiflorae

Family – Poaceae

Genus – Oryza

Species – Sativa

5. What is the scientific name of rice?
 - a. Oryza sativa
 - b. Glumiflorae sativa
 - c. Poaceae Sativa
 - d. Monocotyledonae Sativa

6. Both rice and corn belongs to the class Monocotyledonae, then they must also belong to the same _____.
 - a. Genus
 - b. Family
 - c. phylum
 - d. species

7. Which of the following does not describe a prokaryotic cell?
 - a. Their DNA is not bound by a nuclear membrane.
 - b. They do not posses a true nucleus.
 - c. A plasma membrane surrounds and encloses the prokaryotic cell.
 - d. They posses an extensive endoplasmic reticulum

8. The skin is composed of tissues wherein cells are compactly arranged. This tissues are called _____.
 - a. Connective
 - b. Plasmic
 - c. Epithelial
 - d. None of the above

9. Genes carry the hereditary information from one offspring to another. What organic compound in genes is specifically designed for this task?
 - a. Enzymes
 - b. Nucleic acids
 - c. Proteins
 - d. Lipids

10. What symbiotic relationship refers to the partial dependence of the evolutionary changes of an organism to another specie which it has a close ecological relationship? This is observed in viceroy and monarch butterflies.
 - a. codependence
 - b. correlation

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- c. coevolution
 - d. coexistence
11. Which of the following is not true about vertebrates?
- a. They are warm blooded.
 - b. They belong to the phylum chordates.
 - c. They all have notochords
 - d. None of the above.
12. Which of the following does not happen during mitosis?
- a. Replication of DNA strands
 - b. Coiling up of chromatin
 - c. Movement of the chromosomes towards the center
 - d. None of the above
13. What do we mean when we say that "organisms with favorable variations reproduce more successfully than organisms with less favorable variations?"
- a. Production
 - b. Use and disuse
 - c. Survival of the fittest
 - d. Cross- breeding
14. What does a plant cell have that an animal cell doesn't?
- a. cell wall
 - b. lysosomes
 - c. nucleus
 - d. golgi apparatus
15. What differentiates a prokaryotic cell from a eukaryotic cell?
- a. Presence of true nucleus
 - b. Presence of chromosomes
 - c. Presence of cell membrane
 - d. None of the above
16. Simple, multicellular animals with tissues but no distinct organs. Commonly known as sponges, they typically attach to rocks, shells, or coral. What are they called?
- a. Placozoa
 - b. Porifera
 - c. Cnidaria
 - d. Ctenophora
17. One phylum of animals, the chordates, has been more intensively studied than has any other, because it comprises nearly all the world's largest and most familiar animals as well as humans. The feature uniting these animals is that at some stage in their lives, all have a flexible supporting rod, called a _____.
- a. notochord
 - b. spinal cord
 - c. spina

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- b. phyochord d. redochord

18. The plasma membrane is composed of two layers of _____ interspersed with cholesterol and proteins.

 - hydrophilic molecules
 - hydrophobic molecules
 - phospholipids molecules
 - lipid molecules

19. What will happen if the white blood cells are deteriorating?

 - Oxygen cells will not be transported
 - The nerve impulses will not be carried to the brain
 - The harmful bacteria in the body will not be destroyed
 - There will be no production of hormone to clot the blood

20. What happens to the amount energy as the level rises in the food pyramid?

 - increases
 - decreases
 - remains constant
 - decrease then increase

21. What stage in the meiosis do the paired homologous chromosomes line up along the equatorial plate?

 - prophase
 - metaphase
 - anaphase
 - telophase

In time of severe cold, animals may hibernate for days or weeks at a time. Their body temperature drops, and they breathe only a few times in a minute. A hibernating animal uses the fat store in its body for nourishment.

In times of severe heat, other animals may estivate. Just as with hibernating animals, the body function of estivating animals slow down almost to a stop. To an observer, the animal appears to be either in deep sleep or dead.

22. What generalization could be accurately said about hibernation and estivation?

 - a. Both use more energy than when the animal is awake.
 - b. Both are response to summer.
 - c. Both are response to winter.
 - d. Both are response to extreme temperature.

23. Which of the following facts about hibernation probably does not increase the animal's chances of survival?



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- a. The animal's temperature drops
 - b. The animal exists on body fat.
 - c. The animal cannot move around.
 - d. The animal stays underground for a week time.
24. What is the function of nervous system?
- a. to transport oxygen to the cells
 - b. to carry nerve impulses to the brain
 - c. to control all the organs of the body
 - d. to produce hormones to clot the blood
25. A new insecticide was very effective in killing flies and mosquitoes. After several months, fewer insects were observed to die from the spray. The reason why fewer insects are killed is that _____.
- a. Insects which survive the spraying developed a liking for the insecticide.
 - b. Insects which survive the spraying have developed immunity to the insecticide.
 - c. The insecticide's effectiveness was reduced with aging
 - d. There is permanent mutation giving insects' resistance to the insecticide.
26. Ferns, gymnosperms and flowering plants are vascular plants because _____.
- a. They are seed bearing plants
 - b. They develop from an embryo
 - c. They have specialized stems for storage
 - d. They have a water nutrient transport system
27. Bats are classified as mammals because they have _____.
- a. feathers
 - b. teeth
 - c. mammary gland
 - d. beaks
28. Which of the following process maintains the carbon-oxygen cycle?
- a. respiration
 - b. decomposition
 - c. decomposition
 - d. photosynthesis
29. What best describes a cold blooded animal?
- a. the blood is cold
 - b. first order consumers
 - c. thrive in cool environment
 - d. body fluid temperature adapts to environment
30. What type of reproduction involves gametes?
- a. fusion
 - b. sexual
 - c. asexual
 - d. fission

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