

## Biology – Answer Key

**Class:** 12

**Subject:** Biology

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### **1. What is photosynthesis?**

Photosynthesis is the process by which green plants synthesize food using carbon dioxide and water in the presence of sunlight and chlorophyll.

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### **2. Name the cell organelle known as the “powerhouse of the cell”.**

Mitochondria.

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### **3. What is the basic unit of heredity?**

Gene.

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### **4. Define osmosis.**

Osmosis is the movement of water molecules from a region of higher water concentration to a region of lower water concentration through a semipermeable membrane.

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### **5. Which blood cells help in clotting of blood?**

Platelets (Thrombocytes).

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### **6. What is the function of ribosomes?**

Ribosomes are responsible for protein synthesis.

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### **7. Name the plant hormone responsible for growth of stem.**

Auxin.

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### **8. What is respiration?**

Respiration is the biochemical process by which food is broken down to release energy.

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**9. Name the pigment present in red blood cells.**

Hemoglobin.

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**10. What is meant by biodiversity?**

Biodiversity refers to the variety and variability of living organisms in a given area.

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**11. Which part of the brain controls balance of the body?**

Cerebellum.

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**12. Define ecology.**

Ecology is the study of interactions between organisms and their environment.

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**13. What is DNA?**

DNA (Deoxyribonucleic Acid) is the genetic material that carries hereditary information.

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**14. Name the respiratory organ in fish.**

Gills.

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**15. What is vaccination?**

Vaccination is the process of administering weakened or dead pathogens to stimulate immunity against specific diseases.

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**16. Which gas is released during photosynthesis?**

Oxygen.

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**17. What is the role of insulin hormone?**

Insulin regulates blood glucose levels by promoting the uptake of glucose by cells.

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**18. Name the scientist who proposed the theory of evolution.**

Charles Darwin.

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**19. What is an ecosystem?**

An ecosystem is a functional unit where living organisms interact with each other and with the non-living environment.

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**20. Define genetics.**

Genetics is the branch of biology that deals with heredity and variation