Non-Negotiables: Biology Paper 1

1. What is the function of the nucleus?
Answer:
The nucleus controls the activities of the cell and contains genetic material (DNA).

2. Name two structures found in plant cells but not in animal cells.
Answer:

- Cell wall
- Chloroplasts (also vacuole is acceptable)

3. What is diffusion?
Answer:
The movement of particles from a high concentration to a low concentration.

4. Give one factor that affects the rate of diffusion.
Answer:
Temperature (also: surface area, concentration gradient, or membrane thickness).

5. What is osmosis?
Answer:
The movement of water from a dilute solution to a more concentrated solution through a partially permeable membrane.

6. What is an organ?
Answer:
A group of different tissues working together to perform a specific function.

7. Name one function of the digestive system.
Answer:
To break down large food molecules into smaller ones that can be absorbed.

8. What enzyme breaks down starch?
Answer:
Amylase.

9. Where is bile produced and what does it do?
Answer:
Produced in the liver; it neutralises stomach acid and helps break down fats.

10. Name one type of pathogen.
Answer:
Bacteria (also: viruses, fungi, protists).

11. How do white blood cells defend the body?
Answer:
They engulf pathogens, produce antibodies, and release antitoxins.

12. What is vaccination?
Answer:
Giving a small amount of dead or inactive pathogen to stimulate an immune response.

13. What is the word equation for photosynthesis?
Answer:
Carbon dioxide + water → glucose + oxygen

14. Give one factor that affects the rate of photosynthesis.
Answer:
Light intensity (also: carbon dioxide concentration or temperature).

15. What is aerobic respiration?
Answer:
Respiration that uses oxygen to release energy from glucose.