بـــــــسم اللـــــــه الـــــــــــرحمان الـــــــــــرحيم

HERITAGE GLOBAL ACADEMY

2, Ola Iya Close, Off Okiki Street, Isawo Road, Owutu, Agric-Ikorodu, Lagos

SECOND TERM EXAMINATION 2023/2024 SESSION

Subject: CHECKPOINT BIOLOGY

CLASS: JSS3 **Time: 1HOUR**

INSTRUCTION: ANSWER ALL QUESTIONS

1. The process by which green plants manufacture their own food using sunlight, carbon dioxide, and water is called _____.
2. Animals that primarily feed on other animals for their nutrition are called _____.
3. The process by which complex organic molecules are broken down into simpler substances with the release of energy is known as _____
4. The tiny openings on the surface of leaves through which gases exchange occurs are called _____.
5. Animals that feed on both plants and other animals are referred to as _____.
6. The green pigment found in plant cells that is responsible for capturing light energy during photosynthesis is called _____.
7. The tube-like structure in the digestive system where most nutrient absorption takes place is called the _____.
8. The process by which plants and animals exchange gases with their environment is known as _____
9. Animals that primarily feed on plants are known as _____.
10. The process by which water moves across a semi-permeable membrane from an area of high concentration to an area of low concentration is called _____
11. The structural and functional unit of life is the _____
12. The organelle responsible for generating energy in the form of ATP through cellular respiration is the _____.
13. The organelle responsible for packaging and sorting proteins for secretion or for transport to other parts of the cell is the _____.
14. The movement of molecules from an area of high concentration to an area of low concentration, without the input of energy, is called _____.
15. The outer boundary of a cell that regulates the passage of materials between the cell and its environment is the _____.
16. When a cell is placed in a hypotonic solution, it will _____.
17. The organelle responsible for protein synthesis in the cell is the _____.
18. A hypertonic solution has a _____ concentration of solutes compared to the cell.
19. When a cell is placed in a hypertonic solution, water will move _____ the cell, causing it to shrink.
20. A hypotonic solution has a _____ concentration of solutes compared to the cell.
21. When a cell is placed in a hypotonic solution, water will move _____ the cell, causing it to swell and potentially burst.

22. An isotonic solution has the _____ concentration of solutes as the cell, thus, there is _____23_____ net movement of water, and the cell maintains its shape.
24. Plant cells placed in a hypotonic solution become _____.
25. Cells placed in an _____ solution will gain water and potentially burst. Answer: F. solutes
26. Animal cells placed in a hypotonic solution may experience _____, leading to cell rupture.
27. A solution in which cells neither gain nor lose water is called _____.
28. The process of osmosis is driven by differences in _____ concentration.
29. Cells placed in a _____ solution will swell as water enters the cell.
30. The movement of water during osmosis is influenced by the concentration of _____

30 marks

31. Draw a well labelled diagram of a plant and animal cell 10 marks
32. Write 5 similarities and differences between plant and animal cells 10 marks