Life Processes: Chapter Introduction

Even at rest your body keeps working: repair and maintenance need energy all the time. The four life processes: nutrition, respiration, transportation and excretion.

Name: _____ Date: _____ Score: ____ / 18

A. Fill in the blanks

1. The processes that together maintain life are called ____ processes.

2. Green plants make their own food by ____.

3. Energy is released from food in the cell organelle called ____.

4. In humans, blood is pumped by the ____.

5. Removal of harmful metabolic wastes is called ____.

B. True or False

6. The body needs energy even when we are resting. True / False

7. Humans are autotrophs. True / False

8. Respiration releases energy from food. True / False

9. Excretion is the same as egestion. True / False

C. Assertion and reason

10. Assertion (A): Even a sleeping person needs energy.
Reason (R): Maintenance processes such as repair go on all the time.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

11. Assertion (A): Blood carries oxygen to every cell.
Reason (R): Transportation moves materials to all parts of the body.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

D. Choose the correct option

12. Which is NOT a life process?

(a) nutrition
(b) respiration
(c) transportation
(d) evaporation

Answer: _____

13. Organisms that make their own food are:

(a) heterotrophs
(b) autotrophs
(c) parasites
(d) decomposers

Answer: _____

14. Kidneys mainly help in:

(a) nutrition
(b) respiration
(c) excretion
(d) digestion

Answer: _____

15. Aerobic respiration takes place in the:

(a) nucleus
(b) mitochondria
(c) ribosome
(d) vacuole

Answer: _____

E. Short answer questions

16. Name the four life processes and state the role of each.

17. Distinguish between autotrophs and heterotrophs with one example each.

F. Match the columns

18. Match each item in Column A with the correct item in Column B.

Column A	Column B	Your answer
1. Nutrition	(a) Taking in food	1 → ____
2. Respiration	(b) Releasing energy	2 → ____
3. Transportation	(c) Removing wastes	3 → ____
4. Excretion	(d) Moving materials	4 → ____

Detailed solutions

1. life

2. photosynthesis

3. mitochondria

4. heart

5. excretion

6. True. Maintenance and repair go on all the time.

7. False. Humans depend on food made by others: heterotrophs.

8. True. Glucose is broken down, mostly using oxygen.

9. False. Excretion removes metabolic wastes; egestion removes undigested food.

10. (a) R explains A.

11. (a) R explains A.

12. (d) evaporation. Evaporation is a physical process.

13. (b) autotrophs. Green plants are autotrophs.

14. (c) excretion. They remove wastes and make urine.

15. (b) mitochondria. Mitochondria release energy using oxygen.

16. Nutrition: taking in food. Respiration: releasing energy from food. Transportation: moving materials to all cells. Excretion: removing harmful wastes.

17. Autotrophs make their own food (green plants); heterotrophs depend on food made by others (humans).

18. 1 → (a), 2 → (b), 3 → (d), 4 → (c). Each process matches its role.