21 Mitochondria are the site of aerobic respiration in animal cells. A theory of the evolution of animal cells states that these mitochondria may once have been aerobic bacteria that were taken into the cytoplasm of a cell in an early ancestor of the animals, allowing the cells to gain the ability to respire using oxygen.

Assuming this theory is correct, which of the following statements are true of these aerobic bacteria and human white blood cells?

1 The structure of their DNA is a double helix.

2 They would both possess a cell wall.

3 They would both possess a nucleus.

4 They would both possess a cell membrane.

A 1 and 4 only

B 2 and 3 only

C 2 and 4 only

D 3 and 4 only

E 1, 2 and 3 only

F 1, 3 and 4 only

2015

21 Which of the following could be found in an adult liver cell?

1. gene for amylase
2. sex chromosomes
3. starch

A None of them

B 1 only

C 2 only

D 3 only

E 1 and 2 only

F 1 and 3 only

G 2 and 3 only

H 1, 2 and 3

2013

21 Using the table, select the correct answer from the table.

Cell	Quantity of nuclear DNA
P	1
Q	2
R	0

	P	Q	R
A	gamete	cheek cell	fetal body cell
B	zygote	enucleated egg cell	red blood cell
C	sperm cell	adult stem cell	white blood cell
D	egg cell	nerve cell	enucleated egg cell
E	red blood cell	fertilised egg cell	embryo cell

2011