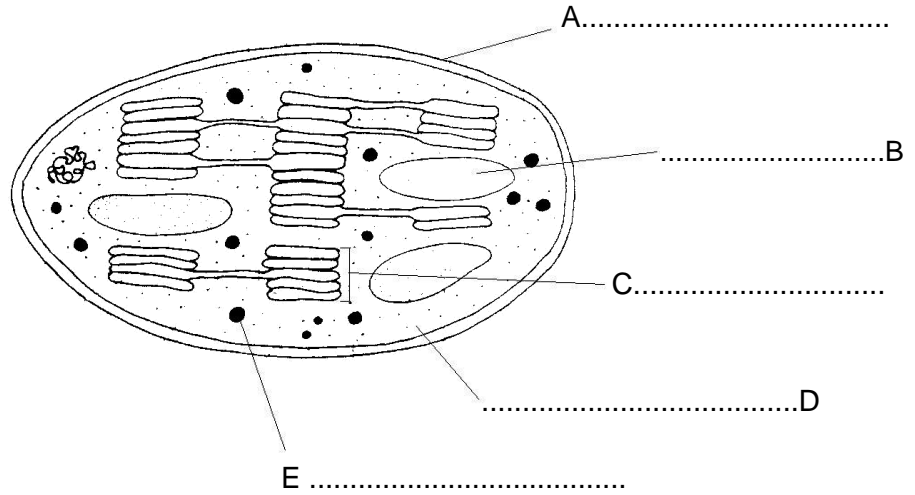


TEST 1

1. The diagram shows the structure of a chloroplast.



(a) Name structures labelled A to E on the diagram.

[5]

(b) Describe where in the chloroplast:

(i) the light dependent reaction takes place.

.....

[1]

(ii) the light independent reaction takes place.

.....

[1]

(c) Describe three similarities in the structure of chloroplasts and mitochondria.

.....
.....
.....

[3]

(d) Suggest why each of the following are present in both chloroplasts and mitochondria.

(ii) Ribosomes.

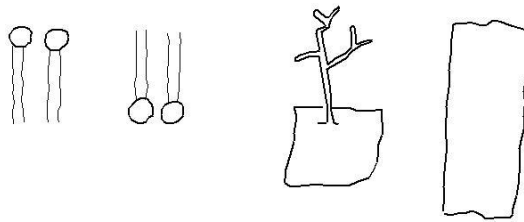
.....

[2]

[1]

TEST 1

2. The diagram below shows some of the components of the plasma membrane.



(a)(i) Using the information shown and your own knowledge, draw a diagram to show the structure of the plasma membrane.

[3]

(ii) On your diagram label the components drawn and indicate the outer surface of the membrane.

[5]

(b) State two functions of the proteins in the plasma membrane.

.....
.....

[2]

(c) Explain how the following substances cross the plasma membrane.

(i) carbon dioxide.

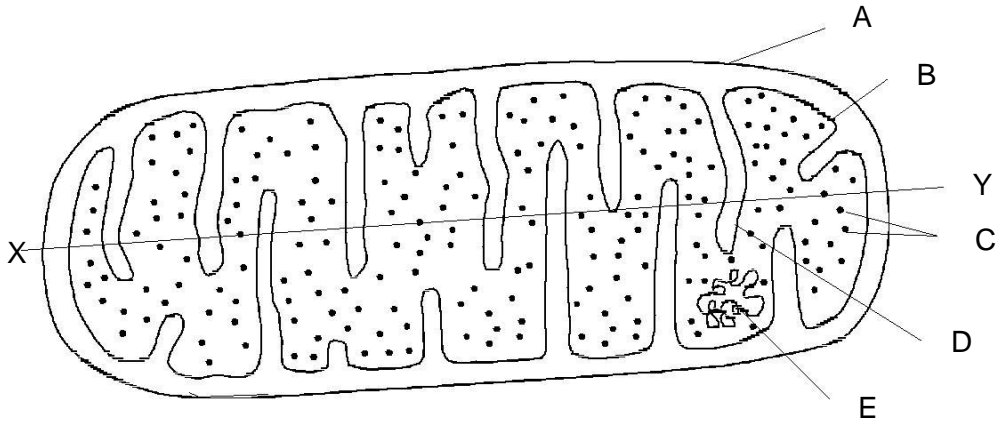
.....
.....

[2]

(ii) glucose.

.....
.....

3. The diagram below shows the structure of a mitochondrion.



(a) Name structures A to E.

A: B: C: D:

E: [5]

(b) State where the following are situated in the mitochondrion.

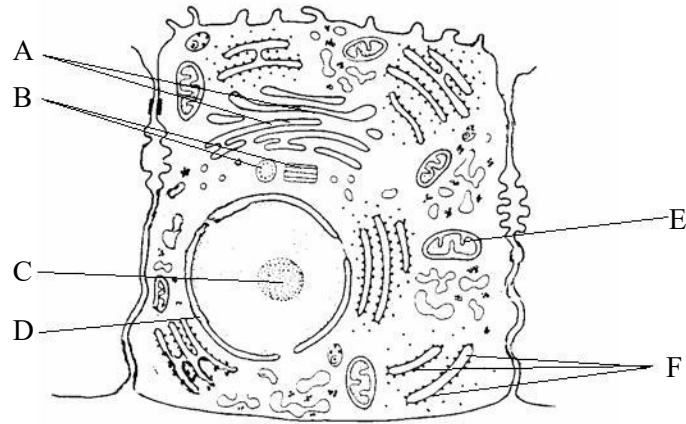
(i) The enzymes involved with oxidative phosphorylation and electron transport.
..... [1]

(ii) The enzymes involved with the Krebs cycle.
..... [1]

(iii) Why does the the mitochondrion contain RNA?
.....
.....

TEST 1

The diagram below shows an electron micrograph of a cell.



(a) Name the parts labelled A, B, C, D, E and F.

- A: D:
B: E:
C: F:

[6]

(b) What evidence can be seen in the diagram that suggests that the cell is:

(i) metabolically active and involved in secretion of enzymes.

-
.....
.....

[3]

(ii) involved in production or modification of lipids?

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