



Biology Leaving Certificate Higher Level

Past Exam Questions on:

Cell Structure, Cell diversity & Tissue

Q5 2013

5. (a) (i) In relation to structures such as the cell membrane, explain the term *selective permeability*.

- (ii) Suggest an advantage to the cell of having a selectively permeable membrane.

- (iii) Name two substances that enter a human muscle cell by diffusion.

- (b) (i) Explain the term *turgor*.

- (ii) Give a feature of a plant cell that allows it to remain turgid for long periods.

- (iii) Suggest a way in which turgor is of value to plants.

Q9(iii) 2013

- (iii) In the microscopic examination of a plant cell:

1. Name the stain that you used and the colour it imparted to the cell wall.

2. How did you apply the stain to the cells on the slide?

2012

2. (a) (i) What is a tissue?

(ii) Give an example of an animal tissue.

(iii) State a role of the animal tissue referred to in (ii).

(iv) Give **one** way in which the tissue referred to in (ii) is adapted to carry out its function(s).

(b) (i) Explain the term *tissue culture*.

(ii) Give **two** examples of the use of tissue culture.

1. _____

2. _____

Q 2010

4. (a) What is a tissue?

(b) Name a tissue found in plants

(c) Give a function of the tissue referred to in part (b)

(d) Name a tissue found in animals.....

(e) Give a function of the tissue referred to in part (d).....

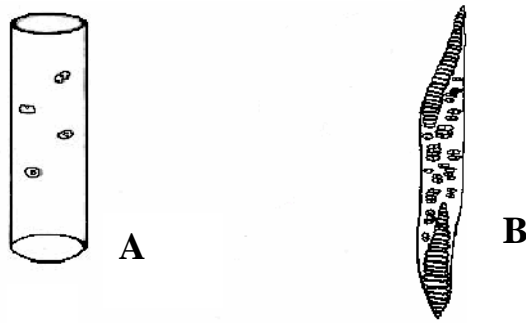
(f) Explain what is meant by the term *tissue culture*

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(g) Give **one** application of tissue culture

Q 6 2007

The diagrams represent two forms of a vascular plant tissue, as seen under the microscope.



- (a) Name this vascular tissue
- (b) Identify the two forms of this tissue.
A..... B
- (c) The walls of A and B are reinforced with a hard material
- (d) Where precisely is this vascular tissue found in the stem of a young dicotyledonous plant?
- (e) Name another vascular tissue

Q 8 – 2006

- 8. (a) State a function of each of the following components of a cell.
 - (i) Ribosome
 - (ii) Cell membrane
- (b) Answer the following questions in relation to the preparation, staining and microscopic observation of a slide of an animal cell.
 - (i) What type of animal cell did you use?
 - How did you obtain the cell?
 - (ii) Name the stain that you used
 - Describe how you applied the stain

(iii)

(iv) After staining, a cover slip is placed on the slide. Give a reason for this

(v) How did you apply the cover slip?

Why did you apply it in this way?

(vi) Describe the difference in colour or depth of colour, if any, between the nucleus and cytoplasm when the stained cell was viewed under the microscope.

