Topic 4 Test Practice

**QUESTION 1:**
Give the correct biological term for each of the following descriptions.

1.1 The plant tissue at the tip of the stem and root that divides by mitosis to produce new plant tissues. *

Your answer

1.2 The fibres in some types of connective tissue that prevent the tissue from stretching too much, and so help to keep the shape of the tissue. *

Your answer

1.3 The end walls of sieve tubes that allow food to pass from sieve tube to sieve tube. *

Your answer

1.4 The thick-walled non-living cells that support plant tissue and do not carry water. *

Your answer

1.5 The connective tissue that stores fat. *

Your answer

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1.6 Technology that is used to obtain products from living organisms. *

Your answer

**QUESTION 2:**
Choose a function from the drop-down box that corresponds with the tissue stated.

2.1 Blood *

Choose

2.2 Tendon *

Choose

2.3 Platelet *

Choose

2.4 Dendrite *

Choose

2.5 Ligament *

Choose

2.6 Goblet cell *

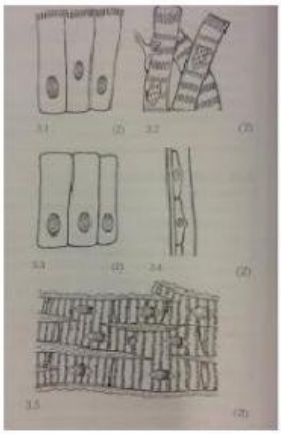
Choose

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**QUESTION 3:**

Look at the diagrams of animal tissues provided. In which part of the body would you expect to find each of the following tissues? Give ONE reason for your answer in each case.

Diagrams of animal tissues



3.1 *

Your answer

3.2 *

Your answer

3.3 *

Your answer

3.4 *

Your answer

3.5 *

Your answer

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**QUESTION 4:**

4.1 Requires you to draw a table to compare bone and cartilage. Please make sure that this is completed in your workbooks. We will mark this table at a later stage.

4.2 a) Explain how the matrix of BONE is suited to the type of support this tissue provides in the body. *

Your answer

4.2 b) Explain how the matrix of CARTILAGE is suited to the type of support this tissue provides in the body. *

Your answer

**QUESTION 5:**

Read the article below and answer the questions that follow.

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## Stem cell cure?

A paralysed patient in the USA has been injected with human embryonic stem cells in a world-first attempt to help him walk again. Doctors hope the stem cells will help nerves in the newly damaged spinal cord regenerate before the disability becomes permanent.

The patient has had millions of the stem cells injected into the site of the injury in an effort to find a revolutionary cure, according to the US firm carrying out the experiment.

The study uses cells obtained from three- to five-day-old fertilised embryos discarded by IVF doctors. This treatment offers hope to patients suffering from serious spinal injuries and also blindness. Researchers are looking to unlock the potential of stem cells for new ways to treat cancer, Parkinson's disease and a host of other illnesses.

Stem cell therapy is opposed by pro-life activists led by the Roman Catholic Church, which is against the use of human embryos to harvest stem cells.

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5.1.1 What are stem cells? *

Your answer

5.1.2 How do doctors hope that stem cell therapy will help the paralysed patient? *

Your answer

5.2.1 Why did they use embryonic stem cells to treat the paralysed patient? *

Your answer

5.2.2 Could they have used adult stem cells instead? Give a reason for your answer. *

Your answer

5.2.3 Why are some people against the use of embryonic stem cells? *

Your answer

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5.3 Researchers believe that stem cell therapy could help to cure a number of diseases. Do you think this treatment should be allowed? Give a reason to support your answer. *

Your answer

**QUESTION 6:**

How does cloning of animals and tissues take place? Should it be allowed? - you will no longer be required to write an "essay" for formal assessments. However this is still good practice to see if you are grasping the content. Use the subheadings below to discuss the questions posed above.

6.1 Therapeutic cloning *

Your answer

6.2 Reproductive cloning *

Your answer

6.3 Your position as to whether you are for or against cloning, and your justification why. *

Your answer

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