# Knowledge assessment 3

**Assessment event 3 of 6**

## Criteria

### Unit code, name and release number

MSL954003 - Relate anatomical and physiological features to laboratory samples (1)

### Qualification/Course code, name and release number

MSL50118 - Diploma of Laboratory Technology (1)

MSL40118 - Certificate IV in Laboratory Techniques (1)

\*\*Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is my own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: 1.0

Date created: 05/08/2019

Date modified: 06/12/2019

For queries, please contact:

Innovative Manufacturing, Robotics and Science SkillsPoint

Hamilton Campus

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge as would be required to understand the basic functions of tissues and cells and how this applies to specimens received within a pathology laboratory environment. |
| **Assessment Event number** | 3 of 6 |
| **Instructions for this assessment** | This is a written assessment and it will be assessing you on your knowledge of the unit.  This assessment is in 4 parts:   1. Multiple choice questions 2. True or false questions 3. Short answer questions 4. Assessment feedback |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your trainer for marking.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **What do I need to provide?** | Pens, student workbook for this unit |
| **Due date/time allowed** | 1 hour |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Student’s Guide to Assessment. |

## Part 1: Multiple choice

Read the question and each answer carefully. Put an X in the table next to your chosen answer.

1. A tissue is:

Table 2 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. a membrane that lines body cavities |  |
| 1. a group of similar cells that perform a unique function to help the organ do its job |  |
| 1. a thin sheet of cells embedded in a matrix |  |
| 1. the most complex organisations unit of the body |  |

1. The four principle types of tissue include all of the following, except:

Table 3 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. nervous |  |
| 1. muscle |  |
| 1. plasma |  |
| 1. connective |  |

1. Tissues differ from each other in the:

Table 4 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. size and shape of their cells |  |
| 1. amount and kind of material between the calls |  |
| 1. special functions they perform |  |
| 1. all of the above |  |

1. Epithelial cells can be classified according to shape. Which of the following is not a characteristic shape of epithelium?

Table 5 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Cuboidal |  |
| 1. Rectangular |  |
| 1. Squamous |  |
| 1. Columnar |  |

1. Which of the following is a function of Epithelium?

Table 6 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Secretion |  |
| 1. Protection |  |
| 1. Absorption |  |
| 1. All of the above |  |

1. Which of the following is not an example of connective tissue?

Table 7 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Transitional |  |
| 1. Adipose |  |
| 1. Blood |  |
| 1. Bone |  |

1. Which of the following statements is **false** regarding connective tissue?

Table 8 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. It is the most abundant tissue |  |
| 1. It is widely distributed throughout the body |  |
| 1. It exists in more varied forms than any of the other tissue types |  |
| 1. It is voluntary |  |

1. Cellular respiration is defined as:

Table 9 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. an intracellular, energy-producing process |  |
| 1. an extracellular, energy-producing process |  |
| 1. an intracellular, energy- requiring process |  |
| 1. an extracellular, energy-requiring process |  |

## Part 2: True or false

Read the question and then write **True** or **False** in the space provided.

Table 10 True or false

| Question | Write *True* or *False* |
| --- | --- |
| 1. There are three classes of membrane in the human body |  |
| 1. There are three major types of tissue in the human body |  |
| 1. Cells are made up of three basic components: protoplasm, plasma membrane and nucleus |  |
| 1. Mitosis and meiosis are the processes through which cells reproduce |  |
| 1. Movement of substances between cells and body fluids occurs by diffusion, osmosis, active transport, endocytosis and filtration |  |
| 1. Red blood cells contain haemoglobin |  |
| 1. White blood cells fight disease |  |
| 1. There are two primary types of blood cells, leucocytes and erythrocytes |  |
| 1. An organ is a group of the same tissue types |  |
| 1. A tissue is a group of different cell types |  |

## Part 3: Short answer

Read the question carefully. The recommended word count is listed at the end of each question.

1. Explain the meaning of the term ‘homeostasis’ and give two examples of homeostatic mechanisms in the body (8 to 25 words):
2. Complete the table below by describing the functions of the nervous tissues (2 to 10 words per cell):

Table 11 Complete the table

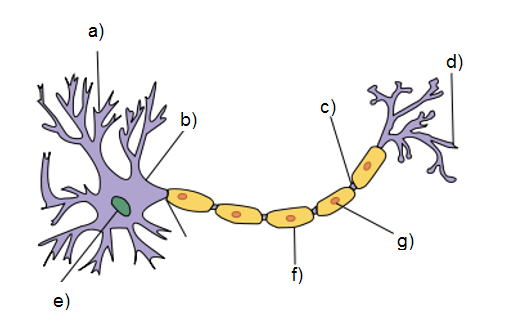
| Nervous tissue | Functions |
| --- | --- |
| Neuroglia |  |
| Axon |  |
| Neuron |  |
| Dendrite |  |

1. If we say a tissue is highly vascular, what do we mean (3 to 15 words)?
2. List four types of connective tissue and where that tissue would be found in the body (12 to 25 words):
3. Identify the skeletal, smooth and cardiac muscle tissues below, and describe them in detail (7 to 15 words):

Table 12 Complete the table

| Muscle tissue | Description |
| --- | --- |
|  |  |
|  |  |
|  |  |

1. Label the neuron in the box below, then describe its function (10 to 30 words):
   1. Label the neuron below



* 1. Describe the function of neurons (3 to 10 words):

1. List the key components found in all cells from the external surface to the interior of the cell (12 words):
2. Complete the table below:
3. List the types of tissues in column B (1 word per cell)
4. List the functions of each type in column C (2 to 10 words per cell)

Table 13 Complete the table

| Tissue | Types / Location | Function |
| --- | --- | --- |
| Glandular |  |  |
|  |  |
| Lymphatic |  |  |

1. List four functions of cells (4 to 10 words):
2. Complete the table below for the basic chemical components of the cell:
   1. Column B (2 to 5 words per cell)
   2. Column C (3 to 15 words per cell)

Table 14 Complete the table

| Major compound | Elements present | Main significance in the body |
| --- | --- | --- |
| Water |  |  |
| Carbohydrates |  |  |
| Proteins |  | Main building blocks of the body’s tissues |
| Fats/Lipids | Carbon, hydrogen and oxygen |  |
| Nucleic acids |  |  |

1. List the primary functions of the four major tissue types in the human body (2 to 10 words per cell):

Table 15 Complete the table

| Tissue | Main function |
| --- | --- |
| Epithelial |  |
| Connective |  |
| Muscle |  |
| Nervous |  |

1. Complete the table below:
   1. List the types of muscle tissues in column B (1 word per cell)
   2. List the location it can be found in column C (1 word per cell)
   3. List the functions of each type in column D (2 to 15 words per cell)

Table 16 Complete the table

| Tissue | Types | Where is it found? | Function |
| --- | --- | --- | --- |
| Muscular |  |  |  |
|  |  |  |
|  |  |  |

## Part 4: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***