# Knowledge assessment 1

**Assessment event 1 of 6**

# Trainer & Assessor Marking Guide

## 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\*\*

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For queries, please contact:

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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 |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a written assessment and will be assessing the student on their 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   This is an open book assessment.  Model answers, sample responses or a criteria for each question are provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct. However, if a student provides information other than indicated below, and in the professional opinion of the assessor it is appropriate and meets the intent of the question, it may be considered correct.  The assessment feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Complete the assessment feedback to the student and ensure you have taken a copy of the assessment prior to it being returned to the student.  Ensure the students name appears on the bottom of each page of the submitted assessment. |
| **About this marking guide** | The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct.  All questions must be answered correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each answer/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the answer sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment:   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Pens, student workbook for this unit |
| **Assessor must provide** | This assessment task, suitable classroom for an exam |
| **Time allowed** | 1 hour |

## Part 1: Multiple choice

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

1. This word element establishes the basic meaning of a medical term:

Table 2 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. prefix |  |
| 1. suffix |  |
| 1. word root | X |
| 1. combining form |  |

1. What two languages are used to formulate medical terminology?

Table 3 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Latin and Ancient French |  |
| 1. Latin and Greek |  |
| 1. Latin and Ancient Greek | X |
| 1. Latin and Ancient Sumerian |  |

1. The medical term for platelet is:

Table 4 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. coagulocyte |  |
| 1. hepatocyte |  |
| 1. leukocyte |  |
| 1. thrombocyte | X |

1. The abbreviation ESR stands for:

Table 5 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. erythrocyte sedimentation rate | X |
| 1. established secondary reaction |  |
| 1. estimated sedimentation range |  |
| 1. evaluated survival response |  |

1. The abbreviation RBC means:

Table 6 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. random blood count |  |
| 1. rare blood cancer |  |
| 1. red blood cell | X |
| 1. reduced blood content |  |

1. A doctor may be request a MSU sample taken from a patient. What does MSU stand for?

Table 7 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Mid-stream urine | X |
| 1. Most of the stream of urine |  |
| 1. Mid-section of urine |  |
| 1. Mid-size urine |  |

## Part 2: True or false

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

Table 8 True or false

| Question | Write *True* or *False* |
| --- | --- |
| 1. Coagulation is the process of clotting | T |
| 1. Sensitivity relates to the action of antibiotics on pathogens | T |
| 1. Word structure for medical terminology relies on a prefix and a word root | F |
| 1. Biochemistry is the study of chemical processes in living organisms | T |
| 1. Microbiologists analyse small particles of matter | F |
| 1. Sputum samples always consist of faecal matter | F |
| 1. Blood samples are always separated prior to analysis | F |

## Part 3: Short answer

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

1. Histological cell samples come from tissue, where do haematological cell samples come from? (1 word)

Blood

1. What is the study of microbiology (5 to 25 words)?

This is the study of all living things that are too small to be seen with the naked eye – microscopic organisms

1. Explain why CSF has a short shelf life following sampling. How quickly must the laboratory receive it following extraction (1 to 15 words)?

Cerebrospinal fluid decays rapidly after sampling and must be received by the laboratory within 1 hour of extraction

Or

Hypotonic

1. Give an example of a sample that is temperature sensitive, and explain why (5 to 25 words):

Blood, cerebrospinal fluid, biopsies etc. All biological materials are temperature sensitive, but some samples more so, dependent on their rate of decay.

1. Why would samples from an autopsy be time and temperature sensitive (15 to 40 words)?

The deceased person’s body is already in a state of decay, and samples need to be taken and received quickly. Examples:

1. Before further degradation of tissue and cells
2. Determine exact time of death (e.g. entomological samples)
3. To get the evidence compiled as quickly as possible for the investigation and for the family of the victim to bury their dead
4. Give an example of a sample you would transport with the following preservation methods (1 to 10 words each):
   1. Wet ice (water)

Transporting a blood sample directly to a patient within the confines of the hospital

* 1. Dry ice (carbon dioxide)

A tissue sample being shipping from a pathology reception to the laboratory

* 1. Formalin

Biopsy / general sample

1. Write the full terminology out for the following histology abbreviations (2 to 5 words per cell):

Table 9 Complete the table

|  |  |
| --- | --- |
| Abbreviation | Full terminology |
| FEC | 5-fluorouracil, epirubicin and cyclophosphamide  Or  Drugs used in chemotherapy |
| IF | Immunofluorescence |
| LM | Lymphocyte markers or light microscope |
| IHC | immunohistochemistry |
| HE | Haematoxylin and eosin stain |
| ISH | In situ hybridisation |

1. Write the full terminology or a description of the following microbiology abbreviations (3 to 10 words per cell):

Table 10 Complete the table

|  |  |
| --- | --- |
| Abbreviation | Full terminology |
| MSC | Microscopy, sensitivity and culture  Or  Micro culture and sensitivity (correct term for micro is MCS) |
| Culture | Making a culture (on an agar plate) of the disease causing microorganism |
| Sensitivity | The sensitivity of the above microorganism to specific antibiotics |
| CSF | Cerebrospinal fluid |

1. Write the full terminology out for the following haematology abbreviations (2 to 5 words per cell):

Table 11 Complete the table

|  |  |
| --- | --- |
| Abbreviation | Full terminology |
| FBC | Full blood count |
| Hct | Haematocrit |
| Coags | Coagulation factors |
| INR | International normalised ratio |

1. Write the full terminology out for the following biochemistry abbreviations (1 to 3 words per cell):

Table 12 Complete the table

| Abbreviation | Full terminology |
| --- | --- |
| Disacc | Disaccharidases test (intestinal) |
| Fe | Iron in blood |
| LFT | Liver function test |
| TFT | Thyroid function test |
| Chol | cholesterol |
| Trig | triglycerides |
| PSA | Prostate specific antigen |
| EUC | Electrolytes, urea, creatinine |
| CEA | Carcinoembryonic antigen |

1. Complete the following table (2 to 10 words per cell):

Table 13 Complete the table

|  |  |
| --- | --- |
| Sample type | Transport media (preservative and/or packaging) |
| Samples that decompose or require preservation | Fixative  Or  Refrigerate / freeze |
| Bacterial swabs | Sterile transport media – agar, and kept cool to prevent overgrowth |
| All slides | Air dried, slide holder and cotton wool, zip-lock bag, no ice/chilling |
| Other body fluids (i.e. not blood) | Sterile containers, water tight, zip-lock over-pack, esky with wet ice, packed tightly |