# Knowledge assessment 3

**Assessment event 3 of 6**

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MSL974021 - Perform biological procedures (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:

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 |
| --- | --- |
| **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 3 parts:   1. Check and log samples 2. Workplace hazards 3. Assessment feedback   The excel spreadsheet, Form *F400: Sample log* is a component of this assessment event, and should be considered as an appendix to this assessment.  A series of pathology request forms have been provided for this assessment event. Each student will need a copy of these pathology requests to complete this assessment event.  You will need to provide ten labelled samples for Part 1 that match the provided pathology request forms. The samples are:  4 x blood  4 x urine  2 x faeces  Model answers, sample responses or 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 |
| **Assessor must provide** | A classroom, 10 simulated samples labelled as per the pathology requests:  4 x blood  4 x urine  2 x faeces  The resources for this assessment event are:  Standard operating procedure *M410: Log samples*  Form *F400: Sample log*  Pathology request forms (MSL974021\_MG\_Kn\_3of6\_SR1)  Please note that standard operating procedures and forms will be available on Learning Bank at the start of 2020. Contact IMRS SkillsPoint if you require a copy earlier. |
| **Time allowed** | 1 hour |

## Part 1: Check and log samples

You have received a set of ten samples and request forms. Your task is to:

1. Check each sample against its pathology request and confirm they match in Table 1: Sample checklist, below.
2. Follow the standard operating procedure *M410: Log samples* to successfully complete the spreadsheet form *F400: Sample log*.
3. Answer the three questions below

**To complete this task, you’ve been provided with:**

* 10 samples
* 10 pathology request forms
* Standard operating procedure *M410: Log samples*
* Form *F400: Sample log*

**TABLE 1: Sample checklist**

Table 2 Checklist

|  |  |  |  |
| --- | --- | --- | --- |
| Sample / request form number | Correct (Y/N) | Sample / request form number | Correct (Y/N) |
| 729513A | Y | 817462B | Y |
| 961427A | Y | 217461A | Y |
| 746123C | Y | 289527C | Y |
| 679852A | Y | 684789C | Y |
| 123857A | Y | 117678B | Y |

Question 1a: Which samples would you batch together? Complete the table below for all of the samples.

Table 3 Batches a

|  |  |  |
| --- | --- | --- |
| Batch number | Analysis required | Sample IDs |
| 1 | UACR | 729513A, 961427A  746123C, 679852A |
| 2 | FBC | 123857A, 817462B  217461A, 289527C |
| 3 | FOBT | 684789C, 117678B |

Question 1b: In the table below you need to schedule these samples so that you could run parallel work sequences and make the working day more efficient. In this table, name the batches you would run in parallel sequence 1a and 1b, or 2a and 2b and so on. Complete the table below for all of the samples.

Table 4 Batches b

|  |  |  |
| --- | --- | --- |
| Batch number | Analysis required | Sample IDs |
| 1a | UACR | 729513A, 961427A  746123C, 679852A |
| 1b | FOBT | 123857A, 817462B  217461A, 289527C |
| 2 | FBC | 684789C, 117678B |

Question 2: What procedures (SOPs) would be required to safely and correctly analyse these samples (5 to 20 words)?

Faecal occult blood test sop

Full blood count sop

Protein in urine sop

Question 3a: List the five different items of equipment that could be used to analyse these samples (5 to 15 words)?

Use your professional judgement to determine if the student has covered the requirements. The below are examples of what may be used

Glassware, pipettes, PPE, biohazardous waste containers, test tubes

Question 3b: List at least five different pieces of instrumentation that could be used to analyse these samples (5 to 15 words)?

Use your professional judgement to determine if the student has covered the requirements. The below are examples of what may be used:

Incubator, centrifuge, autoclave, ICP, AAS, GCMS, Bunsen burner

Question 4: Considering the samples above, how would you minimise the generation of waste during sample preparation and analysis (15 to 40 words)?

By running samples with the same test requirements in batches, which would mean you could use a control for the batch rather than each sample.

By using a computer based data entry system to reduce paper consumption

## Part 2: Workplace hazards

Complete the workplace hazards table below, including the control measures that protect people and the environment.

You must list at least two hazards for each of the following:

* Samples
* Sample and reagent preparation methods
* Reagents
* Equipment

Write your name, sign and date the section below the table.

**Hazards and controls**

Table 5 Hazards and controls

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Procedure / Item | | Hazards | Control measures | |
| Samples | | Infectious agents, Repetitive movement strains | PPE, training, regular movement and stretching, biohazard cabinets | |
| Sample and reagent preparation methods | | Sharps, Infectious agents, Repetitive movement strains | PPE, training, regular movement and stretching, biohazard cabinets | |
| Reagents | | Hazardous chemicals exposure, Slips and trips from spills | PPE, training, regular movement and stretching, spill kits, biohazard cabinets, dangerous goods cabinets | |
| Equipment | | Repetitive movement strains, Electrocution from faulty equipment, Potential exposure to infectious agents or hazardous chemicals | PPE, training, regular movement and stretching, regular maintenance of equipment | |
| Technician name | Jane Smith | | |
| Signature | J Smith | | |
| Date | 27/10/20 | | |