# Knowledge assessment 2

**Assessment event 2 of 3**

## Criteria

### Unit code, name and release number

MSL973016 - Perform aseptic techniques (1)

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

MSL50118 - Diploma of Laboratory Technology (1)

MSL40118 - Certificate IV in Laboratory Techniques (1)

MSL30118 - Certificate III in Laboratory Skills (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: *22/07/2019*

Date modified: *12/11/2019*

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 demonstrate your knowledge of working within a microbiology laboratory whilst conducting aseptic techniques. |
| **Assessment Event number** | 2 of 3 |
| **Instructions for this assessment** | This is a written assessment and it will be assessing you on your knowledge of the unit. This assessment task consists of 4 parts, with the 5th part being your assessment feedback.  This assessment is in 5 parts:   1. Multiple choice questions 2. True or False questions 3. Short answer questions 4. Complete the table 5. 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 and your student workbook for this unit |
| **Due date/time allowed** | 30 minutes |
| **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. What does sterile mean?

Table 2 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Free from spores |  |
| 1. Free from any living microorganism and spores |  |
| 1. Free from spores of mould |  |
| 1. Free from microorganisms |  |

1. What is the function of an autoclave?

Table 3 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. To sterilise culture media, materials and contaminated waste using steam under pressure |  |
| 1. To sterilise heat sensitive / labile materials |  |
| 1. To incubate culture media and contaminated waste |  |
| 1. To sterilise culture media, materials and contaminated waste using boiling water |  |

1. A water sample was passed through a 0.2um membrane in a Millipore filtration apparatus. The water sample filtrate was streaked onto TSA and incubated. Which result would indicate that the filtrate is sterile?

Table 4 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. Bacteria from the water sample passed through the membrane and colonies of bacteria had grown on the TSA plate |  |
| 1. Bacteria from the water sample passed through the membrane and there was no growth on the TSA plate |  |
| 1. Bacteria from the water sample was unable to pass through the membrane and colonies of bacteria had grown on the TSA plate |  |
| 1. Bacteria from the water sample was unable to pass through the membrane and there was no growth on the TSA plate |  |

1. Membrane filtration is used to:

Table 5 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. sterilise liquid by physically removing microorganisms |  |
| 1. chemically inhibit the growth of microorganisms |  |
| 1. kill microorganisms |  |
| 1. physically kill spores |  |

1. Radiation is used as a method of sterilising:

Table 6 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. plastic consumables and other heat sensitive equipment |  |
| 1. glass test tubes and broth bottles |  |
| 1. agar and agar plates |  |
| 1. all of the above |  |

1. Ethical behaviour in a microbiology laboratory would be considered to be:

Table 6 Multiple choice

| Answer choices | Put X next to your answer |
| --- | --- |
| 1. sharing confidential test results with your colleagues over lunch |  |
| 1. accidentally contaminating a sample and not informing your supervisor |  |
| 1. throwing out a sample that has incorrect paperwork and failing to inform the requesting or authorised doctor |  |
| 1. none of the above |  |

## Part 2: True or false

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

Table 12 True or false

| Question | Write *True* or *False* |
| --- | --- |
| 1. Boiling kills living microorganisms and spores |  |
| 1. An inoculation instrument is flamed to sterilise it |  |
| 1. The blue flame is used for sterilising |  |
| 1. It is ethical to share a patient’s test results with their family when they call |  |
| 1. Autoclaving and reusing glass containers and test tubes reduces waste |  |

## Part 3: Short answer

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

1. Name **two** items that should be flamed (3 to 10 words).
2. List **four** sterilisation techniques used in a microbiology laboratory (4 to 10 words):
3. When working in a laboratory undertaking testing of patient specimens, what legal requirements need to be considered (10 to 30 words)?
4. You are about to conduct an aseptic transfer. List the environmental sustainability issues related to this task (10 to 50 words):

## Part 4: Complete the table

Read each question carefully and complete each row of each table below.

1. Complete the following table comparing radiation and autoclaving as a method of sterilisation. Circle the correct answer.

|  |  |  |
| --- | --- | --- |
| Sterilisation technique | Penetrates plastic packaging | High temperature required |
| Autoclaving | Yes / No | Yes / No |
| Radiation | Yes / No | Yes / No |

1. Completed the table below for work health and safety requirements in a microbiology laboratory (5 to 20 words per cell).

|  |  |
| --- | --- |
| Stage of processing | Work Health and Safety (WHS) requirements |
| Sample receipt |  |
| Preparation for aseptic transfer |  |
| Aseptic transfer |  |
| Analysis of results |  |
| Housekeeping |  |

## Part 5: 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.***