

T Level Technical Qualification in Healthcare Science

Occupational specialism assessment (OSA)

Assisting with Healthcare Science

Assignment 3

Assignment brief

v1.2: Specimen assessment materials
February 2023
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Task 1: microscopy – Gram stain

Brief

Location: microbiology laboratory

You are working as a healthcare science assistant in the microbiology department. The biomedical scientist has requested that you prepare positive and negative quality control slides for Gram stains. Control cultures are available in the department. You are required to prepare the slides using the standard operating procedure (SOP) provided and check that they are fit for purpose before passing back to the biomedical scientist for checking.

Task

Prepare the control Gram stain slides using the appropriate control cultures.

1(a): prepare your work area and self for Gram staining

1(b): prepare slides for Gram staining

1(c): carry out Gram staining on the prepared slides following the SOP provided and record the results

1(d): dispose of materials and clean equipment and work area

(40 marks)

Student instructions

Following the quality control (QC) confirmation of your Gram stain using the microscope as part of task 1(c), you must notify the biomedical scientist and explain how you have completed the control Gram stain prior to commencing task 1(d).

Conditions of the assessment

- task 1 must be completed in supervised conditions
- you will only have access to materials permitted by your tutor and available in the designated assessment area
- you will have a maximum of 1 hour to complete this task

Task 2: specimen analysis – blood

Brief

Location: pathology department

You are working in pathology as a healthcare science assistant in the virology department of a hospital, supporting a biomedical scientist (BMS).

Your team receives 2 samples for hepatitis B antibody detection.

Task

The biomedical scientist has asked you to check 2 blood samples to confirm suitability for testing for a hepatitis B antibody screen.

2(a): prepare the work area and self for carrying out a hepatitis B enzyme-linked immunosorbent assay (ELISA) on a blood sample

2(b): check sample suitability and prepare sample for the ELISA

2(c): prepare reagents and quality control (QC) material for ELISA, including:

- following the SOP
- confirming the specimen is ready for analysis
- discussing the process you went through with the biomedical scientist

2(d): carry out post-analysis activities, including:

- sample storage
- equipment cleaning
- waste disposal
- decontamination of work area

(54 marks)

Student instructions

You must complete tasks 2(a) - 2(b) and log the samples details into the laboratory information management system (LIMS).

Conditions of the assessment

- task 2 must be completed in supervised conditions
- you will only have access to materials permitted by your tutor and available in the designated assessment area
- you will have a maximum of 1 hour 30 minutes to complete this task

Document information

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Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Post approval, updated for publication.		January 2021
v1.1	NCFE rebrand.		September 2021
v1.2	OS review Feb 23		February 2023