



T Level Technical Qualification in Healthcare Science (603/7083/X)

Core knowledge and understanding

Paper A Elements 1–10

Paper number: Sample

Specimen June 2022

Morning/Afternoon

Time allowed: 2 hours and 30 minutes

Student instructions

- Use black or blue ink.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions.
- Read each question carefully.
- You **must** write your responses in the spaces provided. There may be more space than you need.
- You may do rough work in this answer book. Cross through any work you do not wish to be marked.

Student information

- The marks available for each question are shown in brackets. This is to help you decide how long to spend on each question.
- The maximum mark for this paper is 122 including quality of written communications (QWC).
- In questions 6, 12, 17, and 21, you will be assessed on your QWC and use of specialist terminology.
- You may use a calculator.

Please complete the details below clearly and in BLOCK CAPITALS.

Student name _____

Provider name _____

Student number

Provider
number

To be completed by the examiner			
Question	Mark	Question	Mark
1 (a)		9	
1 (b)		10	
2 (a)		11 (a)	
2 (b)		11 (b)	
3 (a)		12	
3 (b)		13	
4 (a)		14	
4 (b)		15	
4 (c)		16	
5 (a)		17	
5 (b)		18	
6		19	
7 (a)		20	
7 (b)		21	
8			
			TOTAL MARK

Do not turn over until the invigilator tells you to do so

BARCODE - TQ/EC/CKU/PAPERA

Section A: the roles and responsibilities within healthcare science

This section is worth 34 marks, plus 3 marks for quality of written communication (QWC) and use of specialist terminology.

Answer **all** questions in the spaces provided.

1 (a) State why it is important to have a hospital safeguarding policy. **[1 mark]**

1 (b) Identify **one** group of people a hospital safeguarding policy would apply to. **[1 mark]**

2 (a) Marco has enrolled on an apprenticeship in a rehabilitation engineering department.
Explain what tier Marco will enter his profession. **[1 mark]**

2 (b) Explain **both** the qualifications **and** experience Marco must obtain to progress to a different tier. **[2 marks]**

3 (a)

An employee is leaving their current role as an orthotic technician. Their manager is reviewing the job description to help with the recruitment process.

Describe **three** requirements that should be in the job description for this role.

[3 marks]

3 (b)

Discuss the importance of including detailed information in the job description.

[3 marks]

Please turn over for the next question

4 (a) Define a person specification.

[1 mark]

4 (b) Your classmate asks for your advice on a job application they want to complete. They meet all the desirable criteria in the person specification, and they want to know if you think they should apply.

Explain **two** pieces of advice you should give your classmate.

[4 marks]

SAMPLE

4 (c) Assess the potential impacts of a person specification not having the required information. **[5 marks]**

5 (a) Healthcare organisations work across three main sectors, one is the public sector, identify the other **two** sectors. **[2 marks]**

5 (b) Compare the funding sources available to the public sector with another type of healthcare organisation's funding sources. **[2 marks]**

6 Sarah is an 88-year-old woman who has dementia.

- Sarah is physically active, can walk unaided and has good coordination and manipulation.
- Sarah can do basic domestic tasks but needs supervision, as she places objects in inappropriate locations.
- Sarah can dress herself, although she may choose inappropriate clothing for weather conditions.
- Sarah has poor short-term memory and can usually only communicate her thoughts and needs with prompting.
- Sarah needs to be reminded of her hygiene routine and preparations for bedtime.
- Sarah can use the toilet unaided.

Evaluate the impact of including Sarah’s preferred activities and essential tasks in her patient-centred care plan.

Your answer should include reasoned judgements and conclusions.

[9 marks, plus 3 for QWC]

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SAMPLE

Please turn over for the next section

Section B: Personal and patient safety

This section is worth 34 marks, plus 3 marks for QWC and use of specialist terminology.

Answer **all** questions in the spaces provided.

7 (a) State **three** purposes of a risk assessment in the context of the Regulatory Reform (Fire Safety) Order 2005.

[3 marks]

7 (b) George is a wheelchair user who has just started work at a new company. As part of his induction a fire safety risk assessment must be undertaken.

Describe **three** requirements of a suitable fire risk assessment that would support George.

[3 marks]

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8 Discuss the reasons for the Medicines and Healthcare products Regulatory Agency (MHRA) regulating medical products used only within a hospital. [5 marks]

9 Safia was anxious about receiving another blood transfusion as she had adversely reacted to a previous transfusion.

Explain how **two** functions within the Serious Hazards of Transfusion (SHOT) haemovigilance scheme's remit could provide information that might benefit Safia.

[4 marks]

10 Discuss the reasons for ensuring effective antibiotic stewardship in reducing antibiotic resistance.

[4 marks]

11 (a) State **two** sterilisation techniques that may be used in a laboratory.

[2 marks]

11 (b) You work in a pathogen laboratory, where they sterilise their own equipment.

Explain **two** sterilisation techniques that may be used **and** give examples of how **each** could be used in the laboratory.

[4 marks]

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Please turn over for the next question**

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12

You work in a workshop repairing medical devices that creates a wide variety of waste products, some of which may be contaminated with body fluids.

Discuss how you would ensure compliance with the Environmental Protection Act 1990, with respect to the disposal of all waste and the control of pollution within your waste management plan.

Your response should include relevant policies and demonstrate reasoned judgements and conclusions.

[9 marks, plus 3 for QWC]

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Section C: data handling and confidentiality

This section is worth 21 marks, plus 3 marks for quality of written communication (QWC) and use of specialist terminology.

Answer **all** questions in the spaces provided.

13 You are working in the laboratory, and you notice some confidential patient records have fallen behind a radiator. As a result, you:

- secure the information
- record and report the incident
- ensure you follow the specific organisational policies and procedures.

Explain the reasons for taking these three steps.

[3 marks]

14 Give **two** examples of image-based records.

[2 marks]

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15

You are designing a clinical trial to compare two sets of equipment being used in a spinal injury unit. A colleague suggests asking for advice from a data scientist.

Justify the spinal unit's additional expenditure on a data scientist when planning a trial.

[4 marks]

16

Employees working in a hospital department often need to check patient information on computers in the public reception area, where patients are able to see the screen from the waiting area.

Describe **three** ways in which an employee could ensure patient information remains confidential when using computer screens in the public reception area.

[3 marks]

17

Your healthcare science department intends to change to an IT-based data system, using an outside agency to evaluate their intention. Your manager is worried about the potential risks and consequences of changing to this system.

Discuss the advantages, risks and consequences of using IT systems to record, store and retrieve information and data.

Your response should include reasoned judgements and appropriate conclusions.
[9 marks, plus 3 for QWC]

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Section D: regulatory and professional frameworks

This section is worth 21 marks, plus 3 marks for quality of written communication (QWC) and use of specialist terminology.

Answer **all** questions in the spaces provided.

18 Identify **two** possible impacts of inefficient working practices caused by not regularly cleaning and preparing work areas for use. **[2 marks]**

19 You become aware that a medical refrigerator in your lab is not meeting the required temperature range for the samples it contains.

Discuss the steps that should be taken and the impact if such steps are not actioned. **[6 marks]**

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20

The Medicines and Healthcare products Regulatory Agency (MHRA) are to conduct an inspection of your medicine manufacturing facility.

Explain **four** requirements of good manufacturing practice (GMP) that must be complied with in order to pass this inspection.

[4 marks]

Please turn over for the next question

21

You work in a lab testing patients' blood samples. You have noticed a colleague who does not always perform their role in line with the requirements of Good Scientific Practice (GSP).

Discuss the potential impact of not adhering to the requirements within GSP for the handling of hazardous materials and substances within the lab.

Your response should include reasoned judgements and conclusions.

[9 marks, plus 3 for QWC]

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This is the end of Paper A.

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Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Additional specimen assessment materials		November 2022
v1.1	Sample added as a watermark	November 2023	20 November 2023