
GCSE

History A

91401A Medicine Through Time
Mark scheme

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Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

- 1 (a) What does **Source A** suggest about the medieval understanding of anatomy and physiology?

Explain your answer using **Source A** and **your knowledge**.

[4 marks]

Target:	Knowledge and understanding applied to comprehend and draw an inference from an historical source (AO1 2 marks, AO3 2 marks)	
	Students either submit no evidence or fail to address the question.	0
Level 1:	Answers that select details from the source or show some knowledge of anatomy in the medieval period	1
	Eg the picture shows a man or woman with some organs. It shows a body and has something written around it. It shows the veins. General statement that Islamic medicine was earlier as written in ascription.	
Level 2:	Answers that draw an informed inference based on the source and/or own knowledge	2-3
	Eg the artist shows that veins were all around the body. General comment on the growing importance of medical books. Lack of dissections. Poorer artists. Using earlier Islamic book suggest lack of progress.	
Level 3:	Answers that develop a complex, informed inference based on the source and/or own knowledge	4
	Eg more complex references such as; Some ability suggests that they had some knowledge of the human body. Sense of the culture of Islamic medicine. Explains how Islamic medicine was more advanced. Links to ideas of communicating medical ideas through a medical book. Candidate explains the ban on dissections by the Catholic Church.	

1 (b) What different understanding of anatomy and physiology is suggested by **Source B**?

Explain your answer using **Sources A and B** and **your knowledge**.

[6 marks]

Target: Knowledge and understanding applied to comprehend and draw inferences from two historical sources (AO1 2 marks, AO2 2 marks, AO3 2 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that select details from Source B **1-2**

Eg Well drawn diagrams.

A thick medical book published in Germany.

Written by William Harvey.

Level 2: Answers that provide a simple comparison based on the details of both sources **3-4**

Eg Source A shows a man. Source B seems to show details of the arms. In Source A the veins are drawn badly and Source B they are drawn well. In Source A they show all the veins. In Source B they are just showing the arms. One is a diagram while the other shows an experiment.

Level 3: Answers that develop an understanding or draw informed inferences about anatomy based on the details of both sources **5-6**

At this level the candidate may cover both similarities and differences for the top of the level. One covered with a complex informed inference can also gain top of level.

Detailed drawing may be because Harvey was only studying one thing. Source A is trying to show the whole body and is less detailed. Source B is labelled to show some sort of experiment. Source A is not labelled but there is writing all around the picture.

You can use source B to explain how his experiment worked. You cannot use Source A in this way.

May use some contextual knowledge such a reference to Galen to confirm the differences.

1 (c) Why was the understanding of anatomy different by the time of **Source B**?

Explain your answer using **Sources A and B** and **your knowledge**.

[8 marks]

Target:	Explanation and understanding of the different ideas and attitudes and how they might change over time (AO1 2 marks, AO2 4 marks, AO3 2 marks)	
	Students either submit no evidence or fail to address the question.	0
Level 1:	Answers that select details from sources OR Answers that say how the sources are different Source A is from Medieval times and Source B is from the 17th century times. They are 400 years apart. Source A is an artist's impression Source B is a detailed diagram.	1-2
Level 2:	Answers showing simple reasoning about differences based on changes over time Eg By the 17th century the doctors and surgeons could do dissections of bodies. Harvey was a doctor; we do not know who produced Source A. Factors/reasons may not be explained in any real depth.	3-5
Level 3:	Answers showing developed reasoning about differences based on changes over time Eg Developed references to: <ul style="list-style-type: none"> • Strength of religious beliefs in the Middle Ages v 17th century • Technology of printing books • The impact of the Renaissance and artist abilities • Importance of the individual. E.g. Harvey and Vesalius Nb Warfare in general terms is not sufficiently developed One developed reason = 6 Two developed reasons = 7 Three or more developed reasons = 8	6-8

1 (d) Study **Source C**.

Throughout history there have been many factors that have helped to improve surgery and the understanding of human anatomy.

How important has **war** been in improving surgery and the understanding of anatomy compared with **other factors**?

Explain your answer. You should use **Sources A, B and C** and **your knowledge**.

[8 marks]

[SPaG 4 marks]

Target: An understanding and evaluation of causation (AO1 3 marks, AO2 3 marks, AO3 2 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that provide general statements, describe single factors or factual details about surgery **1-2**

Covers a single factor; individual, Government, technology, medical knowledge and communications. The student will probably focus on government or science and technology. They may focus on technology from Source B or religion from Source A and government or war from Source C.

Level 2: Answers that comment briefly on several factors, to do with surgery **3-4**

May tend to focus on a list of factors with few comments. May list more factors than comments upon. May identify a link for each of the sources provided; Religion (Source A) Technology (Source B) War (Source C).

NB Where a candidate makes clear references to individuals linked into their assessment of war as a factor then this should be placed at level 2.

Level 3: Answers that recognise and explain several factors to do with improvement in surgery in specific detail **5-6**

Science and technology, the individual, religion, chance, war and communications.

Individual factors are covered in some detail and candidate may begin to link together them effectively suggesting that they are all important but without a specific evaluation.

Level 4: Answers that develop out of Level 3 and evaluate the relative importance of individual factors or come to a summary assessment about the factors involved or provide details of the links between factors **7-8**

The key will be the relative importance of each factor linked to the pace of change. There should be a clear evaluation within the answer. Students will be expected to make clear points backed up with historical evidence and an evaluative explanation.

Eg the most important factor was science and technology. Without it... In conclusion the most important factor(s) was/were...

2 (a) Choose **one** of the individuals below who has contributed to the battle against disease and infection:

- Robert Koch
- Alexander Fleming

Describe the work of your chosen individual.

[4 marks]

Target: Understanding of the key features of the period (AO1 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that show recognition and simple understanding of the individual 1-2

Eg Individuals:

- Robert Koch and the identification of germs.
- Koch and the growth of germs in a lab
- Photographing germs
- Discovery of penicillin by Fleming.
- Early testing

Level 2: Answers that explain and show understanding in a broader context of the individual 3-4

Eg

- Fleming: the chance discovery with elements of genius?
- Fleming and his written report used by later scientists (Chain)
- Fleming: support for military and after the war for civilians
- RK: Importance of identification so cures could be found by others
- RK: Work led to race to find inoculations or vaccinations.
- RK: Supported the development of the magic bullets
- Importance of discovery of specific germs – anthrax, TB, Cholera

2 (b) Which of these individuals was more important in the battle against disease and infection?

- Robert Koch
- Alexander Fleming

Explain your answer. You must include **both individuals** in your answer.

[8 marks]

Target: Evaluation and understanding of the key factors (AO1 & AO2 4+4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Describes the importance of one individual **1-2**

- Penicillin and the war effort / use after the war on civilians
- Identification of germs led to identification of typhoid, diphtheria, pneumonia.

Level 2: Answers that consider one individual(s) contribution to the battle against disease and infection **3-5**

Eg expect a detailed/complex response if student focuses on a single individual.

OR

Answers that comment briefly on both individuals in a simple comparison

Eg there were improvements due to both individuals. Koch to lead to search for magic bullet, Fleming discovered a natural anti biotic.

Level 3: Answers that explain and evaluate both individuals contribution to the battle against disease and infection **6-8**

Clearly evaluates the contributions of both individuals. May come to a conclusion that one individual was more significant than the other at certain times.

Students who focus on a single individual but make a clear passing reference to the second factor can be placed at the bottom of this level.

Students who cover both in depth with an explanation/judgement should be *at least* at the midpoint of the level.

3 (a) Choose **one** of the periods below

- Ancient Greece
- The Medieval World.

Describe the treatment of disease and infection in your chosen period.

[4 marks]

Target: Understanding of the key features of the period (AO1 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that show recognition and simple understanding of the key period 1-2

Eg focus on work of Hippocrates as a doctor in Greece.
Focuses on doctors in the Medieval World.

Level 2: Answers that explain and show understanding in a broader context of the period 3-4

Eg: Ancient Greece and the natural/supernatural approach of the Asclepion. Belief in regimen – exercise, cleanliness and good food as a cure to illness.

Eg: Christian doctors using herbal, natural and supernatural methods. Focus on Hippocratic methods and Four Humours/ theory of opposites.

- 3 (b) Which of these periods was the more successful for the treatment of disease and infection?

- Ancient Greece.
- The Medieval World.

Explain your answer. You must include **both periods** in your answer.

[8 marks]

Target: Evaluation and understanding of the key periods (AO1 & AO2 4+4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Describes the importance of one period 1-2

Eg describes work of Hippocrates and Galen.

Eg describes simple skills of medieval doctors with impact of Christianity on medical practice.

Describes the importance of doctors being trained in the Islamic world eg Baghdad Hospital and medical books of the Islamic medical profession.

Level 2: Answers that consider one periods' contribution to the development of the treatment of disease. 3-5

Expect this to be in some depth

OR

Answers that comment briefly on both periods in a simple comparison

Eg there were successes in both periods. Greek doctors and the Asclepion, healthy lifestyle, clinical observation. Christian doctors and day to day medical care. Use of monasteries.

Level 3: Answers that explain and evaluate both periods contribution to the treatment of disease 6-8

Clearly evaluates the contributions of both periods. May come to a conclusion that one period was more significant than the other at certain times.

Students who focus on a single period but make a clear passing reference to the second period can be placed at the bottom of this level.

Students who cover both in depth with an explanation/judgement should be *at least* at the midpoint of the level.

Although there were improvements in the skills of doctors in the middle ages they still centred their work on the work of Hippocrates and Galen. However in the time of Hippocrates and Galen the changes they suggested were quite revolutionary as doctors tried to find practical cures against dependency on the impact of superstition.

4 (a) Choose **one** of the factors below:

- the role of the individual
- science and technology.

Describe how your chosen factor influenced the development of Public Health.

[4 marks]

Target: Understanding of the influence of the factor (AO1 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that show recognition and simple understanding of the factor 1-2

Eg Without science and technology they would not have been able to build aqueducts or public baths.

Level 2: Answers that explain and show understanding in a broader context of the factor. 3-4

Eg the individual was important. Without the work of Dr John Snow they might not have been proof of the cause of the cholera.

Eg technology such as the microscope was vital to the study of germs which led to the germ theory and proof as to what they needed to do next. Ref fresh water, better housing, sewerage systems.

Individuals: From : Chadwick, Snow, Nightingale, Seacole, Rowntree, Booth, David Lloyd George

Science and technology : Roman sewers, baths, water supply
Victorians : London sewers of Bazalgette, Housing

4 (b) Which of these **factors** was more important in the development of Public Health?

- The role of the individual.
- Science and technology.

Explain your answer. You must include **both factors** in your answer.

[8 marks]

Target: Evaluation and understanding of the key features of the development (AO1 4 marks, AO2 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Describes the contribution of one factor **1-2**

Eg Booth and Rowntree produced reports which showed the need for public health legislation. Science and technology skills were needed to build a modern sewerage system in the 19th century.

Level 2: Answers that consider one factor in depth **3-5**

This will be more detailed and will focus much more clearly on the contribution made by the individual. Probably a strong chronological account with references to significance.

Answers that comment briefly on both factors

Eg Individuals showed the need for greater public health like John Snow's discovery of contaminated water and Edwin Chadwick's report which led to a Public Health Act. Science and technology was needed to prove the germ theory which explained public health problems and the technology to build sewers and improved housing.

Level 3: Answers that explain and evaluate both factor's contribution to the development of public health. **6-8**

Clearly evaluates the contributions of both periods. May come to a conclusion that one period was more significant than the other at certain times.

Students who focus on a single period but make a clear passing reference to the second period can be placed at the bottom of this level.

Students who cover both in depth with an explanation/judgement should be *at least* at the midpoint of the level.

Individuals:

John Snow
Edwin Chadwick
Octavia Hill
Louis Pasteur
Booth and Rowntree
Lloyd George
William Beveridge.

Science and technology

Water, sewerage, housing.
Microscope
Scientific investigation germ theory

5 (a) Choose **one** of the periods of public health reform below:

- the second half of the nineteenth century, c1848–1900
- the time of Liberal Government, 1906–1914.

Describe the public health reforms of your chosen period.

[4 marks]

Target: Understanding of the key features of the period chosen (AO1 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Answers that show recognition and simple understanding of the key period chosen from the question 1-2

Answers will show simple recognition of chosen period.

Eg in the 19th century they passed Public Health Acts in 1848 and 1875

Eg in the 20th century they created national insurance.

Level 2: Answers that explain and show understanding in a broader context of the period chosen 3-4

Answers will show knowledge of some distinctive features of the chosen period.

Eg explains the work of Booth and Rowntree and links it to the Liberal reforms and impact before the First World War; free school meals, pensions, national insurance for many workers.

Explains legislation in the 19th century going from laissez-faire attitude of government through to state intervention..

5 (b) Which of these periods was more important for public health reform?

- The second half of the nineteenth century, c1848–1900.
- The time of the Liberal Government, 1906–1914.

Explain your answer. You must include **both periods** in your answer.

[8 marks]

Target: Evaluation and understanding of the key features of the period (AO1 4 marks, AO2 4 marks)

Students either submit no evidence or fail to address the question. **0**

Level 1: Describes the importance of one period 1-2

Eg in the 19th century; compulsory acts of parliament.

3-5

Level 2: Answers that consider one periods' contribution to the improvements in public health.

Expect detailed historical knowledge and understanding if only covering one period.

OR

Answers that comment briefly on both periods in a simple comparison

Eg there were improvements in both periods. The 19th century saw physical changes; the 20th century saw political and social changes.

Level 3: Answers that explain and evaluate both periods contribution to the improvements in public health. 6-8

Clearly evaluates the contributions of both periods. May come to a conclusion that one period was more significant than the other at certain times.

Students who focus on a single period but make a clear passing reference to the second period can be placed at the bottom of this level.

Students who cover both in depth with an explanation/judgement should be *at least* at the midpoint of the level.

Eg in the 19th century the main focus of public health was legislation so that each area was forced to provide the basics of fresh water, sewerage disposal and better housing. By the 20th century many of the basic physical infra-structure had been created eg sewers in London, but people still needed help to overcome poverty. This was provided through free school meals, national insurance when you were unemployed, old age pensions and better housing.

