1.2 Medicine in Britain, c1700-c1900: Vaccination, Germ Theory and Public Health: 30-minute Pack

EDEXCEL 1HI0 · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. You are advised to spend about 30 minutes on this pack.

1 Name the two anaesthetics that were introduced into British surgery during the 1840s to reduce patients' pain.

(Total for Question 1 is 2 marks)

2 Explain why the government passed the Public Health Act of 1875.

(Total for Question 2 is 8 marks)

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3 'Germ theory was the main turning point in the fight against disease in Britain in the years c1700-1900.' How far do you agree with this statement? Explain your answer.

(Total for Question 3 is 16 marks)

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Mark scheme · 1.2 Medicine in Britain, c1700-c1900: Vaccination, Germ Theory and Public Health: 30-minute Pack

Question 1

ether (first used in a British operation in December 1846)	**B1**
chloroform (introduced by James Simpson in 1847)	**B1**

Answer: Ether and chloroform.

Question 2

Level 1 Identifies one or two general reasons for the 1875 Act, with little or no supporting detail or explanation.	**1-2**
Level 2 Identifies and begins to explain one reason, supported by accurate detail.	**3-4**
Level 3 Explains two reasons for the 1875 Act, each supported by accurate and relevant detail.	**5-6**
Level 4 Explains two or more reasons in a well-developed, logically structured way, supported throughout by precise and accurate detail, showing how the reasons connect.	**7-8**

Indicative content:

- By the 1870s, germ theory was widely accepted following the work of Pasteur and Koch, giving the government a scientific basis for believing that public health measures such as clean water and sewage disposal could genuinely prevent disease.
- Earlier legislation had shown the limits of a voluntary approach: the Public Health Act of 1848 only allowed, rather than required, local authorities to improve sanitation, and its Central Board of Health was abolished in 1858, leaving conditions in many towns unimproved.
- Edwin Chadwick's 1842 Report on the Sanitary Condition of the Labouring Population had already shown a clear link between poor living conditions and disease and death rates, building pressure for government action over several decades.
- Recurring cholera epidemics, including outbreaks in 1848-49 and 1854, and John Snow's 1854 investigation of the Broad Street pump, had strengthened the case that contaminated water spread disease, adding urgency to calls for reform.
- By the 1870s, growing acceptance that the state had a duty to protect public health, alongside a wealthier and more organised system of local government, made a compulsory national law more practical and more widely supported than it would have been earlier in the century.

Question 3

Level 1 Shows limited relevant knowledge of medical developments in the period, and offers only a simple, unsupported opinion on the statement.	**1-4**
Level 2 Shows some relevant knowledge and identifies relevant factors, but the argument is only partly supported and lacks a developed judgement on how far the statement is accurate.	**5-8**
Level 3 Shows good relevant knowledge and explains a range of factors, reaching a supported judgement on how far the statement is accurate, with some links made between factors.	**9-12**
Level 4 Shows precise, well-selected knowledge and explains a range of factors in a balanced way, reaching a fully supported and sustained judgement on how far the statement is accurate, with clear analytical links between factors and consistently accurate use of specialist historical terminology.	**13-16**

Indicative content:

- Supporting: Pasteur's germ theory (published 1861) provided the first scientifically accurate explanation of the cause of infectious disease, replacing older ideas such as miasma and spontaneous generation, and directly enabled further breakthroughs, such as Koch's identification of specific disease-causing bacteria and Lister's use of carbolic acid as an antiseptic in surgery from 1865.
- Supporting: germ theory gave public health reform a firm scientific foundation, helping to explain why the compulsory Public Health Act of 1875 was more effective than the earlier, voluntary 1848 Act.
- Against: significant progress had already been made before 1861, such as Jenner's smallpox vaccination in 1796 (developed decades before germ theory, through observation rather than an understanding of viruses) and the introduction of anaesthetics (ether and chloroform) in the 1840s, which solved the separate problem of surgical pain.
- Against: government attitudes and public health reform, such as Chadwick's 1842 report and the 1848 Public Health Act, were also crucial, and some of this pressure for reform existed before germ theory was accepted.
- Against: Florence Nightingale improved hospital hygiene and nursing during the Crimean War (1854-56) based on an inaccurate belief in miasma, yet still achieved real reductions in death rates, showing progress was possible even without a correct theory of disease.
- A balanced judgement might argue that germ theory was the single most significant turning point because it explained why earlier practical improvements (cleanliness, isolation, vaccination) worked, and because it directly caused later developments in surgery and public health, even though important progress had already begun before 1861.

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