INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer two questions from Section A and one question from Section B.

Write your answers in the spaces provided in this booklet. If you run out of space, use the continuation page at the back of the booklet, and if this is not sufficient use supplementary sheets. Write your name at the top of each supplementary sheet, indicating clearly the number of the question you answer. Put the supplementary sheets inside this booklet.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded that assessment will take into account the quality of written communication used in your answers that involve extended writing. These are the questions in Section B.

In addition, your ability to spell, punctuate and use grammar accurately will be assessed in your answer to your chosen question in Section B.
1. **This question is about developments in medical knowledge.** [20]

(a) Describe the work of Louis Pasteur in the nineteenth century. [5]
Look at these two sources about medical knowledge in the sixteenth and seventeenth centuries and answer the question that follows.

**Source A**

Vesalius repeatedly stressed the idea that students must not depend upon the teachings of their elders, but must explore the inner workings of the human body for themselves. By looking into the workings of the human body, Vesalius was able to correct 200 previously unquestioned theories.

[From a medical history website]

**Source B**

[Diagrams from William Harvey’s book, *On the Motion of the Heart and Blood* (1628)]
(b) Explain why medical knowledge improved in the sixteenth and seventeenth centuries. [7]

In your answer, you should use the information provided in the sources and your own knowledge to show the extent of improvement and the reasons for this.
(c) Why was the discovery of X-rays by Wilhelm Röntgen in the nineteenth century a turning point in the development of medical knowledge?

END OF QUESTION 1
2. This question is about changes in the prevention and treatment of disease. [20]

(a) Describe the work of Christian Barnard in the later twentieth century. [5]
Look at these two sources about the use of penicillin in the treatment of disease since the 1920s and answer the question that follows.

**Source A**

[Image: Alexander Fleming examining a petri dish in the laboratory where he discovered penicillin mould in the late 1920s]

**Source B**

It took the Second World War to force companies to develop a way of making penicillin on an industrial scale. Penicillin was used widely after D-Day on wounded men and it was found to be especially effective against gangrene as the chance of a wound getting infected was vastly reduced.

[From an educational website]
(b) Explain why the development of penicillin has been important for the treatment and prevention of disease since the 1920s. [7]

[In your answer, you should use the information provided in the sources and your own knowledge to show the extent of importance and the reasons for this]
(c) Why was the work of James Simpson a turning point in the treatment of disease in the nineteenth century?

END OF QUESTION 2
3. **This question is about developments in public health and patient care.**

   (a) Describe attempts to provide healthier housing and cleaner air in the twentieth century. [5]
Look at these two sources about patient care in the nineteenth century and answer the question that follows.

**Source A**

![A drawing showing poor conditions in a military hospital ward during the Crimean War (1856)](image)

**Source B**

A careful nurse will keep a constant watch over her sick, to guard against the effects of the loss of vital heat by the patient himself. The feet and legs should be examined by the hand from time to time, and whenever a tendency to chilling is discovered, hot bottles, with some warm drink, should be made use of until the temperature is restored.

[From Florence Nightingale’s *Notes on Nursing* (1859)]
(b) Explain why patient care improved in the nineteenth century. [7]

[In your answer, you should use the information provided in the sources and your own knowledge to show the extent of improvement and the reasons for this]
(c) Why was the establishment of the National Health Service important in improving patient care in the twentieth century? [8]
SECTION B

Answer one question only from this section.

Marks for spelling, punctuation and the accurate use of grammar are allocated to this question. [3]

Either,

4. Has medical knowledge always developed successfully from the Middle Ages to the present day? [12]

You may wish to discuss the following in your answer:

- The impact of common ideas in the Middle Ages
- Developments in the Renaissance period
- The influence of new ideas like the Germ Theory
- The development of scanning techniques
- and any other relevant factors.

Or,

5. Have methods of preventing and treating disease always led to better health from the Middle Ages to the present day? [12]

You may wish to discuss the following in your answer:

- The use of traditional treatments and remedies
- The development of scientific approaches to treating diseases
- The use of anaesthetics and development of antibiotics
- Developments in surgery, including transplant surgery
- and any other relevant factors.

Or,

6. Have standards of public health and patient care always improved from the Middle Ages to the present day? [12]

You may wish to discuss the following in your answer:

- The role of the church and medieval hospitals
- The contribution of Edwin Chadwick and Florence Nightingale
- The establishment of the National Health Service
- The success of attempts to provide healthier housing and cleaner air
- and any other relevant factors.

You may only answer one question from Section B.
Number of the question chosen in Section B: ..........................