0 4 Microorganisms can cause disease.

0 4 . 1 Draw **one** line from each disease to the correct description.

[3 marks]

Disease	Description
	Can be spread by not washing hands thoroughly.
HIV	Can increase the chance of infections such as pneumonia.
	Part of the life cycle includes an insect.
Malaria	
	Spread by coughs and sneezes.
Salmonella	Treated with stem cells.
	Treated with fungicides.

Question 4 continues on the next page

0 4 . 2 Gonorrhoea is a sexually transmitted disease.

A bacterium causes gonorrhoea.

What are the symptoms of gonorrhoea?

[2 marks]

Tick **two** boxes.

- Headache ☐
- Pain when urinating ☐
- Rash ☐
- Vomiting ☐
- Yellow discharge ☐

Table 2 shows the number of people in the UK diagnosed with gonorrhoea in different years.

Table 2

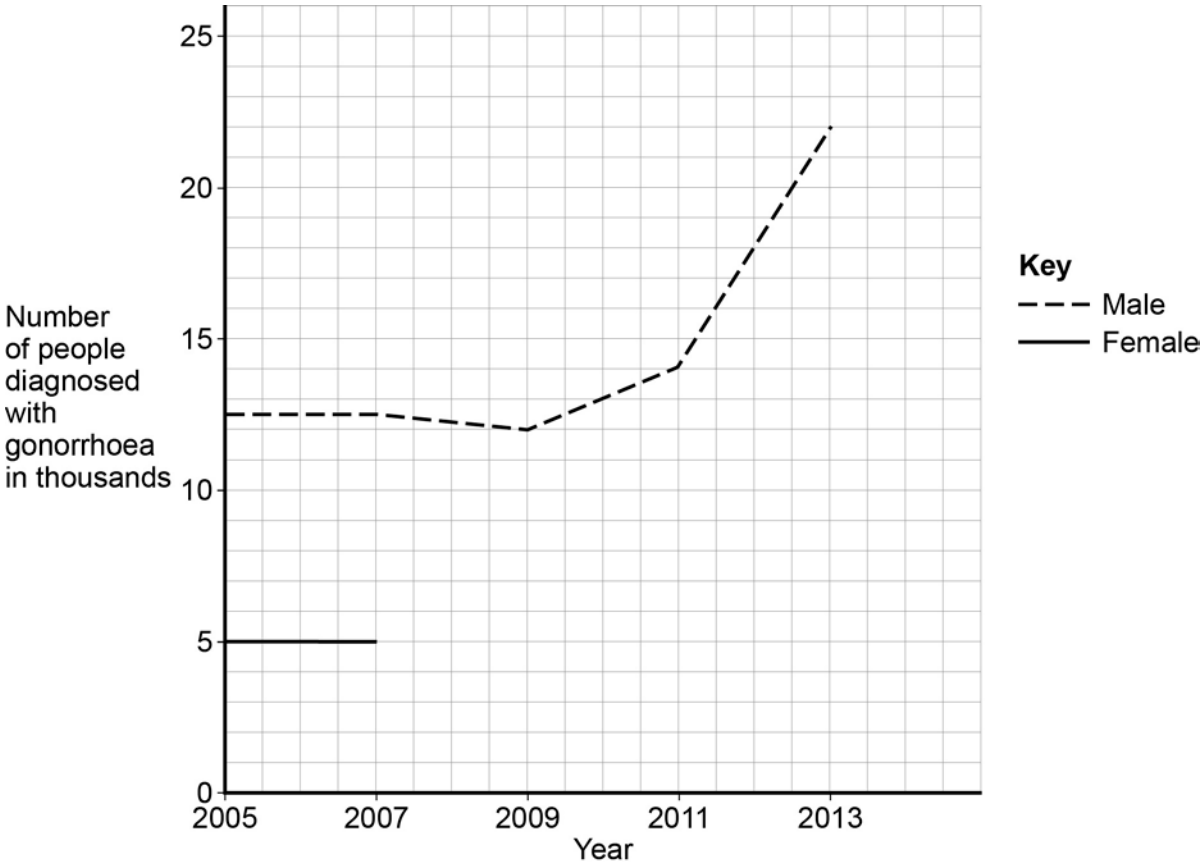
	Number of people diagnosed with gonorrhoea in thousands	
Year	**Female**	**Male**
2005	5.0	12.5
2007	5.0	12.5
2009	5.5	12.0
2011	6.0	14.0
2013	7.5	22.0

0 4 . 3 Use the data in **Table 2** to complete **Figure 7**.

- The numbers for males have already been plotted.
- Only some of the numbers for females have been plotted.

[3 marks]

Figure 7



0 4 . 4 Describe the patterns in the numbers of males and females with gonorrhoea from 2005 to 2013.

Use the data in **Figure 7**.

[3 marks]

Question 4 continues on the next page

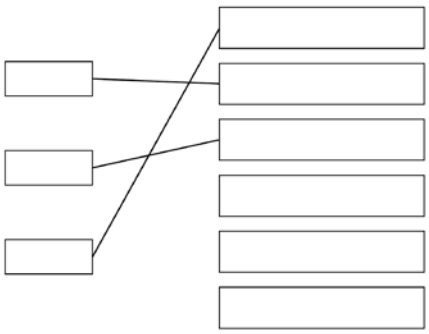
0 4 . 5 Gonorrhoea is treated with an antibiotic.

HIV is another sexually transmitted disease.

Explain why prescribing an antibiotic will **not** cure HIV.

[2 marks]

Question 4

Question	Answers	Extra information	Mark	AO / Spec. Ref.
04.1		each extra line negates a mark	1 1 1	AO1/1 4.3.1.2 AO1/1 4.3.1.5 AO1/1 4.3.1.3
04.2	pain when urinating yellow discharge		1 1	AO1/1 4.3.1.3 AO1/1 4.3.1.3
04.3	three correct plots correctly drawn line	allow **1** mark for two correct plots	2 1	AO2/2 4.3.1.3 AO2/2 4.3.1.3
04.4	any **three** from: • (fairly) level / steady up to 2009 • (there is a) rise after 2009 • males are (always) higher than females • males rising faster than females	allow numbers of males fall (slightly) **and** females rise (slightly) up to 2009 allow overall increase (from 2005 to 2013)	3	AO3/1a 4.3.1.3

Question 4 continued

Question	Answers	Extra information	Mark	AO / Spec. Ref.
04.5	HIV is a virus		1	AO1/1 4.3.1.8
	(and) antibiotics are <u>only</u> effective against bacteria **or** antibiotics do not kill viruses	allow viruses live inside cells	1	AO2/1 4.3.1.8
Total			**13**	