

# 16. Reproduction

## 16.6 Sexually transmitted infections

### Paper 3 and 4

Question Paper

## Paper 3

**Questions are applicable for both core and extended candidates**

1 (a) HIV infection can lead to AIDS.

(i) State the words that the letters HIV represent.

..... [1]

(ii) Describe ways of reducing the risk of a person becoming infected with HIV.

.....

.....

.....

.....

.....

.....

..... [3]

**(b)** Chlamydia, gonorrhoea and syphilis are sexually transmitted infections (STIs).

Table 7.1 shows the numbers of people infected with these STIs in one country from 2014 to 2018.

**Table 7.1**

year	number of people infected		
	chlamydia	gonorrhoea	syphilis
2014	1 400 000	350 000	19 000
2016	1 600 000	468 000	27 000
2018	1 800 000	583 000	35 000

**(i)** The list shows some conclusions.

Place ticks ( $\checkmark$ ) in the boxes to identify **two** correct conclusions for the data shown in Table 7.1.

In 2014, there were 1 050 000 more people infected with chlamydia than were infected with gonorrhoea in 2014.	<input type="checkbox"/>
In 2016, the number of people infected with chlamydia was three times greater than the number of people infected with gonorrhoea.	<input type="checkbox"/>
In 2018, more people were infected with syphilis than with gonorrhoea.	<input type="checkbox"/>
The number of people with STIs has increased each year.	<input type="checkbox"/>
Between 2016 and 2018, the number of people infected with syphilis increased by 16 000.	<input type="checkbox"/>

[2]

**(ii)** Syphilis can be treated with antibiotics.

Suggest the type of organism that causes syphilis.

..... [1]

[Total: 7]

2 (b) HIV infection is an example of an STI.

(i) State the name of the type of pathogen that causes an HIV infection.

..... [1]

(ii) Describe how HIV can be transmitted.

.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

3 (a) HIV is a pathogen that can cause AIDS.

Table 3.1 shows the adult population size of a country and the estimated number of people infected with HIV/AIDS in that country in 2016.

Data for six countries are shown.

Table 3.1

country	adult population size	estimated number of adults infected with HIV/AIDS
A	808 824	220 000
B	248 490	8 200
C	221 000	221
D	3 250 000	130 000
E	5 111 111	46 000
F	1 333 333	48 000

(i) State which country in Table 3.1 had the greatest number of adults infected with HIV/AIDS.

..... [1]

(ii) Calculate the percentage of adults in country B that were infected with HIV/AIDS.

Give your answer to one decimal place.

..... %  
[2]

(iii) State why antibiotics are **not** effective against HIV.

.....  
.....  
..... [1]

## Paper 4

Questions are applicable for both core and extended candidates

4 (a) Chlamydia is a sexually transmitted infection (STI) that is caused by a bacterium.

Fig. 2.1 shows the number of chlamydia cases in a country in 2018.

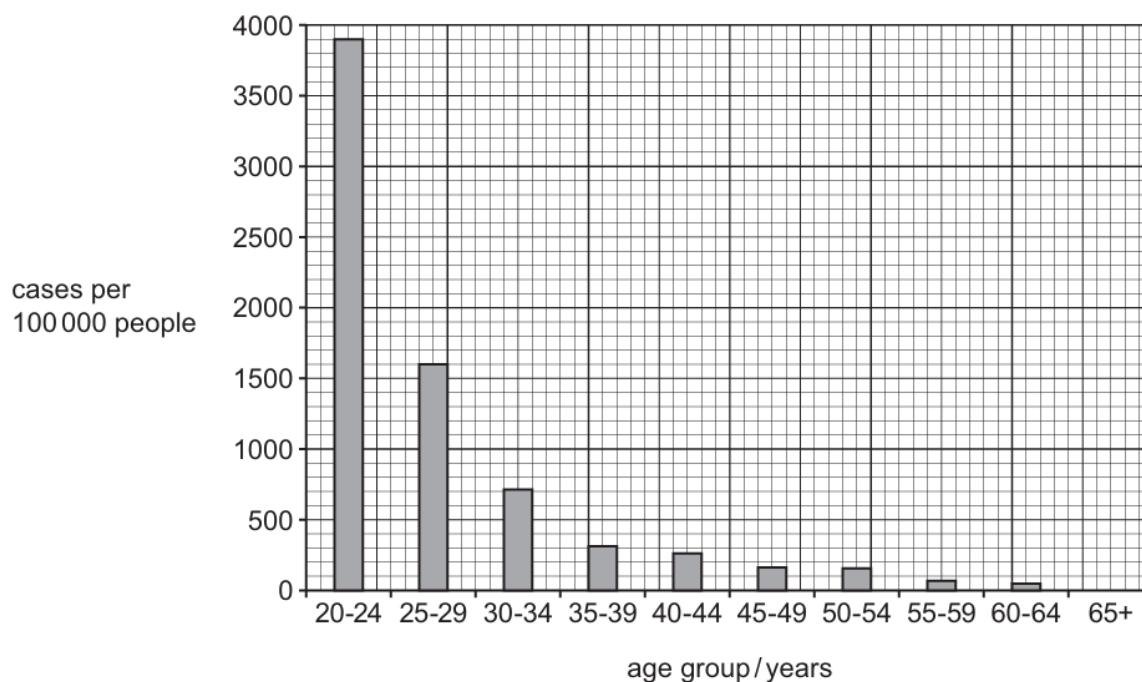


Fig. 2.1

(i) Calculate the percentage decrease in the number of chlamydia cases between the age groups 20–24 and 25–29.

Give your answer to **two** significant figures.

Space for working.

.....% [3]

(ii) Describe how the spread of STIs, such as chlamydia, can be controlled.

[4]