4 **(a)** Fig. 4.1 shows part of a human placenta and umbilical cord. The arrows show the direction of blood flow.

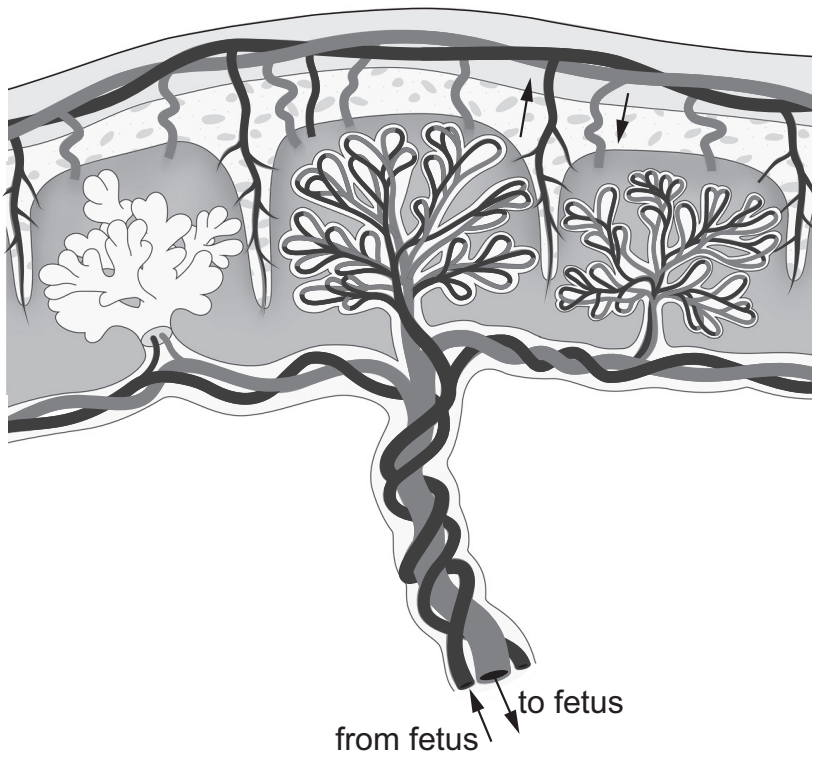

Fig. 4.1

(i) Describe the functions of the placenta and the umbilical cord shown in Fig. 4.1.

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..... [4]

(ii) A fetus develops inside an amniotic sac.

Describe the functions of the amniotic sac and amniotic fluid.

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..... [3]

(b) Syphilis is a sexually transmitted infection (STI) that can be passed from a mother to her fetus.

(i) State the name of **one** other STI that can be passed from mother to fetus.

..... [1]

(ii) State **two** ways to control the spread of STIs.

1 .....

2 .....

[2]

[Total: 10]