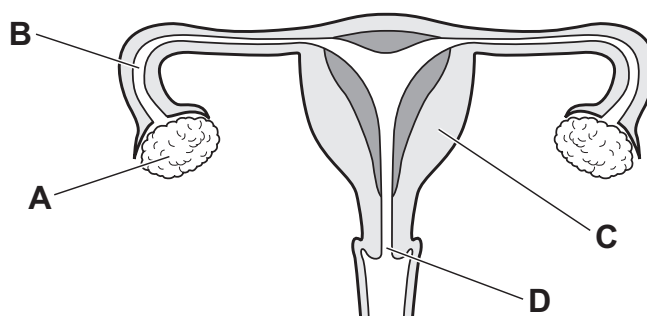


26 Which statement describes the net direction of movement of a substance across the placenta?

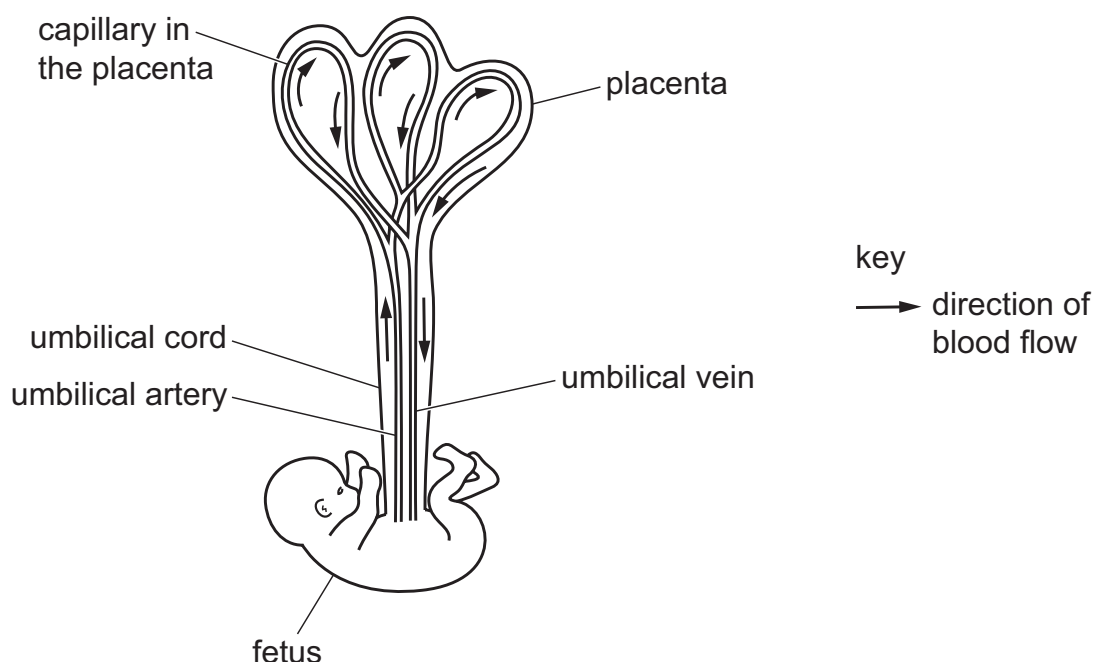
- A** Carbon dioxide moves from the mother's blood to the fetus's blood.
- B** Glucose moves from the fetus's blood to the mother's blood.
- C** Glycogen moves from the mother's blood to the fetus's blood.
- D** Urea moves from the fetus's blood to the mother's blood.

27 The diagram shows the human female reproductive system.

Which label identifies the uterus?



28 The diagram shows the blood supply between a fetus and a placenta.



Which row shows the concentration of substances in the umbilical artery and umbilical vein?

	umbilical artery	umbilical vein
A	high nutrient concentration	high urea concentration
B	high urea concentration	high carbon dioxide concentration
C	low carbon dioxide concentration	low nutrient concentration
D	low oxygen concentration	low urea concentration

6 (a) Fig. 6.1 is a diagram of the human male reproductive system.

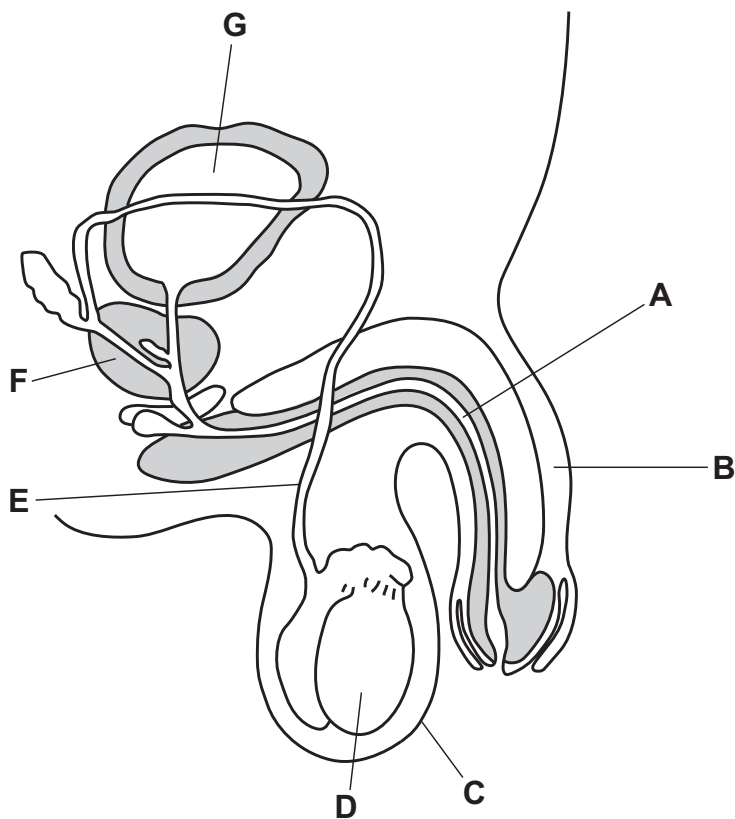


Fig. 6.1

Table 6.1 contains information about the male reproductive system shown in Fig. 6.1.

Complete Table 6.1.

Table 6.1

letter in Fig. 6.1	name of the structure	function
	scrotum	
		produces seminal fluid
		transports urine and sperm
E		

[4]

(b) State the name of the hormone that causes voices to deepen at puberty.

..... [1]

(c) Sperm have adaptive features to carry out their function.

Explain **three** adaptive features of sperm.

- 1
-
- 2
-
- 3
-
- [3]

[Total: 8]

8 The diagram shows the direction of **net** movement of two substances across a human placenta.



Which tissue represents maternal blood and which substance is identified correctly?

	tissue that represents maternal blood	substance that is identified correctly
A	P	1 = carbon dioxide
B	P	2 = urea
C	Q	1 = amino acids
D	Q	2 = starch

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

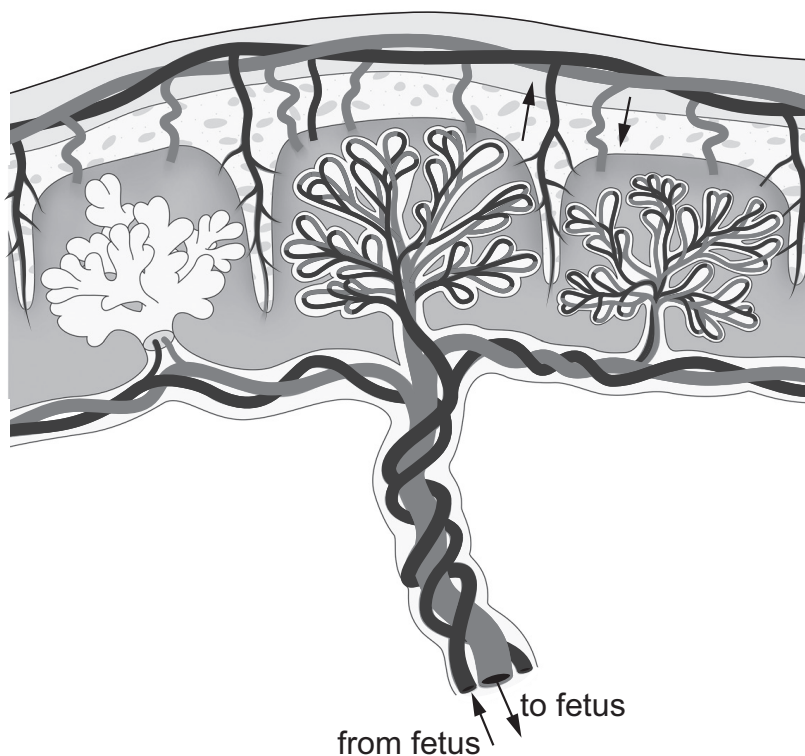


Fig. 4.1

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

(ii) A fetus develops inside an amniotic sac.

Describe the functions of the amniotic sac and amniotic fluid.

[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]