

16.4 Sexual reproduction in humans

01. 0610_m22_qp_22 Q: 30

What will happen if a woman smokes during pregnancy?

- A Nicotine can cross the placenta and affect the fetus.
 - B Nicotine can cause COPD in the lungs of the fetus.
 - C The woman can become addicted to carbon monoxide.
 - D Carbon monoxide can cause cancer in the lungs of the fetus.
-

02. 0610_s21_qp_21 Q: 31

How will the composition of a pregnant woman's blood change as it passes through the placenta?

	concentration of dissolved oxygen	concentration of urea
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

03. 0610_s21_qp_23 Q: 31

Where is progesterone produced in the late stages of pregnancy?

- A ovaries
 - B pancreas
 - C placenta
 - D uterus
-

04. 0610_w21_qp_21 Q: 31

Which adaptive feature is only found in female gametes?

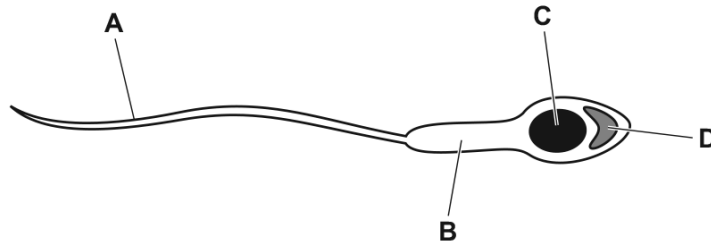
- A acrosome containing enzymes
 - B flagellum
 - C jelly coat
 - D nucleus containing chromosomes
-

16.4. SEXUAL REPRODUCTION IN HUMANS

05. 0610_m20_qp_22 Q: 30

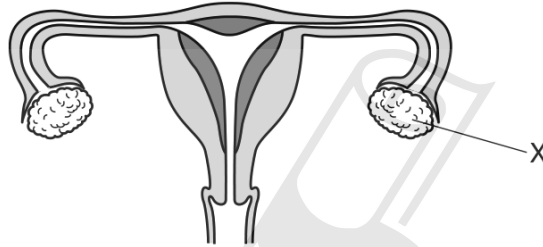
The diagram shows a sperm cell.

Which part contains mitochondria to release energy for movement?



06. 0610_p20_qp_20 Q: 26

The diagram shows the female reproductive system.



What is the function of the part labelled X?

- A gamete production and hormone secretion
- B gamete production only
- C hormone secretion only
- D zygote production and hormone secretion

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07. 0610_s20_qp_21 Q: 29

The diagram shows a sperm cell.

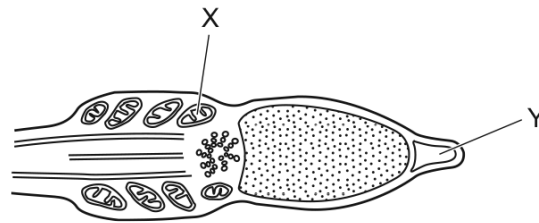
Which part contains enzymes that digest the jelly coat of an egg cell?



16.4. SEXUAL REPRODUCTION IN HUMANS

08. 0610_s20_qp_23 Q: 28

The diagram shows the head of a sperm.



What are the functions of structures X and Y?

	X	Y
A	protein synthesis	digestion of egg cell jelly coat
B	releases energy for movement	digestion of egg cell jelly coat
C	protein synthesis	energy store
D	releases energy for movement	energy store

09. 0610_w20_qp_21 Q: 29

Which feature is only found in the male gamete?

- A** acrosome
- B** enzymes
- C** jelly coat
- D** mitochondria

10. 0610_s19_qp_21 Q: 30

Which feature allows the sperm to dissolve the jelly coating of the egg cell?

- A** acrosome
- B** flagellum
- C** mitochondria
- D** nucleus

11. 0610_w19_qp_22 Q: 28

In humans, why are sperm cells produced in much greater numbers than egg cells?

- A Many sperm cells are needed to fertilise an egg cell.
- B Sperm cells are small in size.
- C Sperm cells are non-motile.
- D The chance of one sperm cell reaching an egg is very small.

12. 0610_w19_qp_22 Q: 30

The diagram shows the cells of a mammalian embryo shortly after fertilisation.



Which is the correct description of these cells?

- A gametes undergoing meiosis
- B gametes undergoing mitosis
- C stem cells undergoing meiosis
- D stem cells undergoing mitosis

13. 0610_m18_qp_22 Q: 24

Which describes a human male gamete?

	motile	relative size compared to female gamete	flagellum present
A	yes	larger	yes
B	yes	smaller	yes
C	no	smaller	no
D	no	larger	no

14. 0610_s18_qp_21 Q: 30

What is a function of the mitochondria in a sperm cell?

- A penetrating the surface of the egg cell
- B propelling the sperm towards the egg
- C storing food energy
- D supplying the energy for movement

16.4. SEXUAL REPRODUCTION IN HUMANS

15. 0610_s18_qp_22 Q: 29

Which adaptive feature of sperm provides the energy that enables it to swim?

- A the acrosome
 - B the cell membrane
 - C the flagellum
 - D the mitochondria
-

16. 0610_w18_qp_21 Q: 28

Which statement describes human male gametes?

- A large, few and non-motile
 - B large, numerous and motile
 - C small, few and non-motile
 - D small, numerous and motile
-

17. 0610_w18_qp_21 Q: 29

Which organ secretes the most progesterone during pregnancy?

- A adrenal gland
 - B ovary
 - C placenta
 - D uterus
-

18. 0610_w18_qp_22 Q: 27

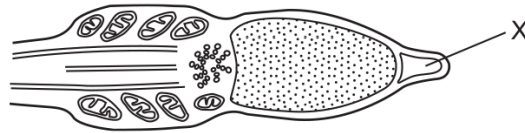
What are two adaptive features of a human sperm cell?

- 1 jelly coat present
- 2 relatively high number of mitochondria
- 3 acrosome present
- 4 relatively high energy stores

- A 1 and 2 B 1 and 4 C 2 and 3 D 3 and 4
-

19. 0610_m17_qp_22 Q: 27

The diagram shows the head of a sperm.

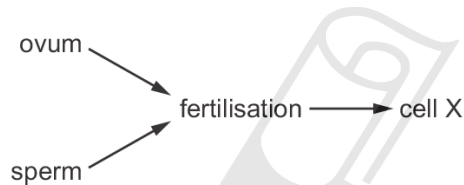


What is the function of structure X?

- A It carries genetic information.
- B It controls the activities of the sperm cell.
- C It is involved in the digestion of the ovum cell membrane.
- D It provides energy for movement.

20. 0610_m17_qp_22 Q: 29

The diagram represents the fusion of sperm and ovum at fertilisation.



Which description of cell X is correct?

- A diploid gamete
- B diploid zygote
- C haploid gamete
- D haploid zygote

21. 0610_s17_qp_23 Q: 29

What is a function of the placenta?

- A a barrier to nicotine
- B a barrier to the rubella virus
- C exchange of blood
- D transfer of dissolved nutrients

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22. 0610_w17_qp_21 Q: 29

Which row shows the adaptive features of sperm cells?

	flagellum	jelly coat	mitochondria
A	absent	absent	present
B	absent	present	absent
C	present	absent	present
D	present	present	absent

23. 0610_p16_qp_20 Q: 25

Which feature of sexual reproduction helps a species to evolve?

- A** Fewer offspring are produced than in asexual reproduction.
- B** Offspring are the result of the fusion of the nuclei of dissimilar gametes.
- C** Offspring always inherit advantageous characteristics.
- D** Offspring produced will always be in a suitable environment.

24. 0610_w16_qp_21 Q: 28

When does fertilisation occur in humans?

- A** when an egg is released
- B** when implantation occurs
- C** when sperm and egg nuclei fuse
- D** when sperm are released

25. 0610_w16_qp_22 Q: 29

What describes the nuclei in human reproduction?

	egg	sperm	zygote
A	diploid	diploid	diploid
B	diploid	diploid	haploid
C	haploid	haploid	diploid
D	haploid	haploid	haploid

26. 0610_w16_qp_22 Q: 30

Which feature allows the sperm to dissolve the jelly coating of the egg cell?

- A acrosome
- B flagellum
- C mitochondria
- D nucleus

27. 0610_w16_qp_22 Q: 32

Which combination of chromosomes from egg and sperm cells will produce a boy?

	egg	sperm
A	X	X
B	X	Y
C	Y	X
D	Y	Y

28. 0610_w16_qp_23 Q: 29

The diagram shows the structure of a sperm cell.

Which part is the flagellum?



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SN	Paper	Q. No.	Answer
01	0610_m22_qp_22	30	A
02	0610_s21_qp_21	31	B
03	0610_s21_qp_23	31	C
04	0610_w21_qp_21	31	C
05	0610_m20_qp_22	30	B
06	0610_p20_qp_20	26	A
07	0610_s20_qp_21	29	D
08	0610_s20_qp_23	28	B
09	0610_w20_qp_21	29	A
10	0610_s19_qp_21	30	A
11	0610_w19_qp_22	28	D
12	0610_w19_qp_22	30	D
13	0610_m18_qp_22	24	B
14	0610_s18_qp_21	30	D
15	0610_s18_qp_22	29	D
16	0610_w18_qp_21	28	D
17	0610_w18_qp_21	29	C
18	0610_w18_qp_22	27	C
19	0610_m17_qp_22	27	C
20	0610_m17_qp_22	29	B
21	0610_s17_qp_23	29	D
22	0610_w17_qp_21	29	C
23	0610_p16_qp_20	25	B
24	0610_w16_qp_21	28	C
25	0610_w16_qp_22	29	C
26	0610_w16_qp_22	30	A
27	0610_w16_qp_22	32	B
28	0610_w16_qp_23	29	D



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