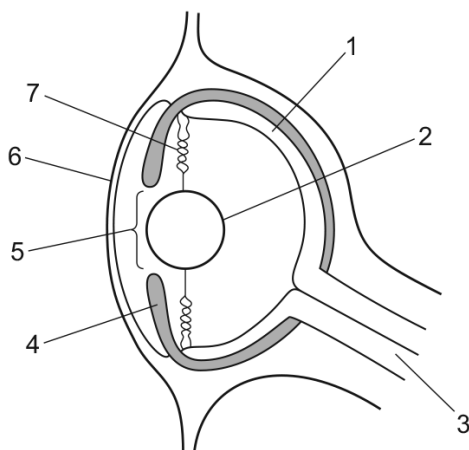


14.2 Sense organs

01. 0610_m22_qp_22 Q: 26

The diagram shows a section through the eye of an octopus. Octopuses have eyes that are similar in structure and function to human eyes.



Which row identifies the structures of the octopus eye?

	pupil	cornea	lens	iris
A	4	6	7	3
B	5	1	2	3
C	4	1	7	5
D	5	6	2	4

02. 0610_s21_qp_21 Q: 26

The diagram shows the appearance of an eye when in bright light.



bright light

Which row gives the correct states of the iris muscles in bright light?

	radial muscles	circular muscles
A	contracted	contracted
B	contracted	relaxed
C	relaxed	contracted
D	relaxed	relaxed

14.2. SENSE ORGANS

03. 0610_s21_qp_23 Q: 26

Which row shows the levels of organisation for structures associated with the eye?

	cell	tissue	organ	organ system
A	cone	fovea	endocrine	eye
B	rod	retina	eye	nervous
C	antibody	muscle	artery	circulatory
D	lymphocyte	capillary	vein	sensory

04. 0610_w21_qp_21 Q: 25

When we read a book, our eyes accommodate to view near objects.

Which statement is correct when viewing a near object?

- A** ciliary muscle contracts, suspensory ligaments are slack, lens is thicker
- B** ciliary muscle contracts, suspensory ligaments are tense, lens is thinner
- C** ciliary muscle relaxes, suspensory ligaments are slack, lens is thinner
- D** ciliary muscle relaxes, suspensory ligaments are tense, lens is thicker

05. 0610_w21_qp_22 Q: 27

Which row shows the pupil reflex in bright light?

	muscles in iris		size of pupil
	circular	radial	
A	contracts	relaxes	larger
B	contracts	relaxes	smaller
C	relaxes	contracts	larger
D	relaxes	contracts	smaller

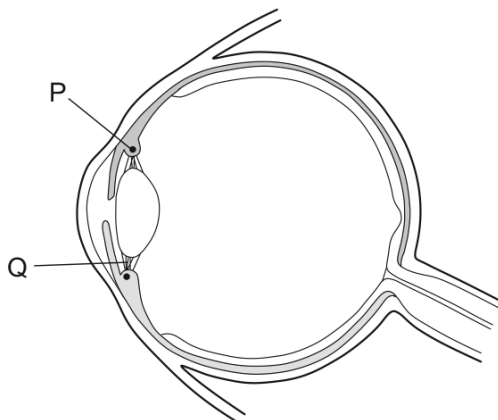
06. 0610_m20_qp_22 Q: 27

Which row shows the state of the ciliary muscles and suspensory ligaments, when the eye is focusing on a near object?

	ciliary muscles	suspensory ligaments
A	contracted	slack
B	contracted	tense
C	relaxed	slack
D	relaxed	tense

07. 0610_p20_qp_20 Q: 22

The diagram shows a section through a human eye.



When focusing on a close object at night, what is the state of structures P and Q?

	P	Q
A	contracted	tight
B	contracted	slack
C	relaxed	tight
D	relaxed	slack

08. 0610_s20_qp_21 Q: 25

Which row shows the actions needed for the eye to focus on a distant object?

	ciliary muscles	suspensory ligaments	lens becomes
A	contract	slacken	thicker
B	relax	slacken	thicker
C	contract	tighten	thinner
D	relax	tighten	thinner

14.2. SENSE ORGANS

09. 0610_s20_qp_22 Q: 24

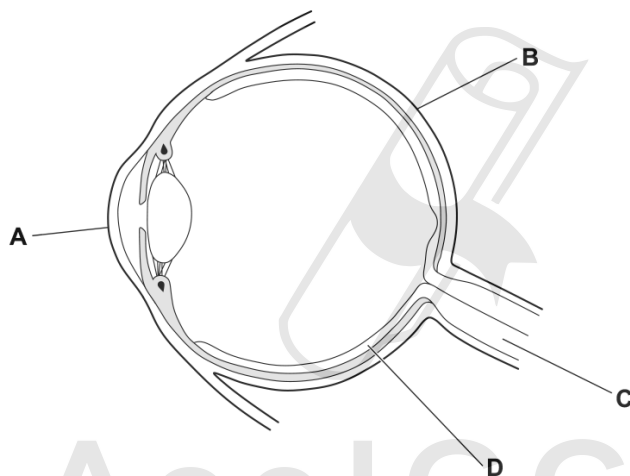
Which responses occur in the iris of the eye when a person walks from a brightly lit area to a dimly lit area?

	circular muscle	radial muscle
A	contract	contract
B	contract	relax
C	relax	contract
D	relax	relax

10. 0610_w20_qp_21 Q: 24

The diagram shows an eye.

Which labelled part contains cells that are sensitive to light?



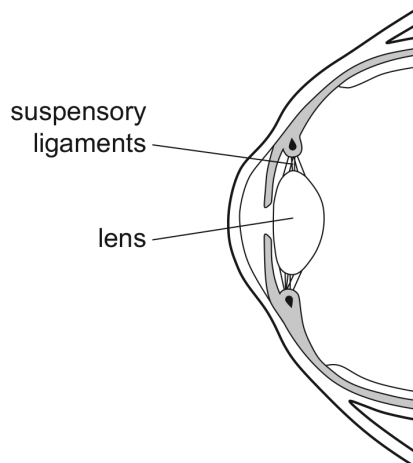
11. 0610_w20_qp_23 Q: 24

What is a function of the cornea?

- A** carries impulses to the brain
- B** contains light-sensitive receptors
- C** controls how much light enters the eye
- D** refracts light

12. 0610_m19_qp_22 Q: 25

The diagram shows a section through part of the human eye.



What takes place when a person looks at an object which is far away from their eye?

	suspensory ligaments	lens
A	slacken	becomes fatter
B	slacken	becomes thinner
C	tighten	becomes fatter
D	tighten	becomes thinner

13. 0610_s19_qp_21 Q: 26

Which statement about light receptors in the retina of a normal human eye is correct?

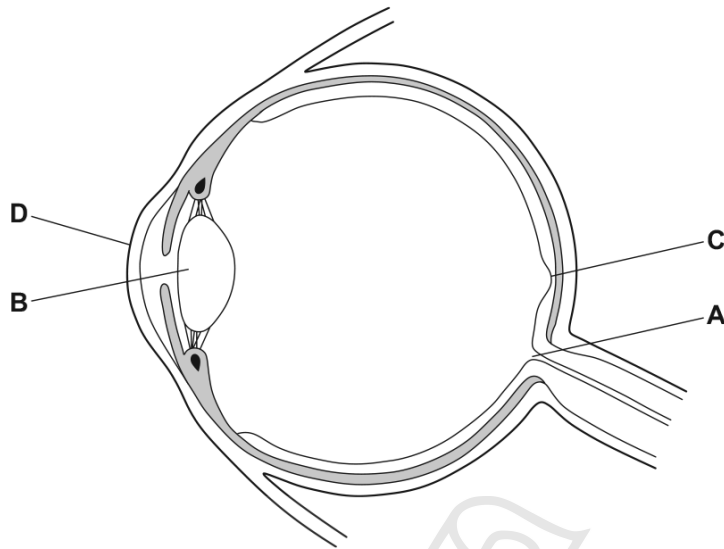
- A** The cones only work in dim light.
- B** The rods are found in the fovea.
- C** There are three types of cone.
- D** There are three types of rod.

14.2. SENSE ORGANS

14. 0610_s19_qp_22 Q: 26

The diagram shows a cross-section of the human eye.

Which label points to the spot in the eye where vision is the sharpest?



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15. 0610_s19_qp_23 Q: 26

The diagram shows a vertical section through part of a human eye. A fly is coming nearer to the eye. The eye begins to focus the image of the fly on its retina.



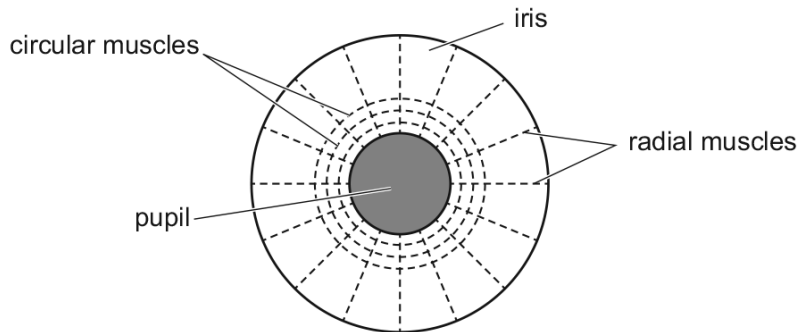
How do the labelled parts of the diagram change?

	Q	R	S
A	contracts	thinner	tighter
B	relaxes	fatter	slacker
C	contracts	fatter	slacker
D	relaxes	thinner	tighter

14.2. SENSE ORGANS

16. 0610_w19_qp_21 Q: 23

The diagram shows the muscles that control the size of the pupil in an eye.



How do the muscles make the pupil smaller?

	circular muscles	radial muscles
A	contract	contract
B	contract	relax
C	relax	contract
D	relax	relax

17. 0610_m18_qp_22 Q: 20

Which description of how the pupil of the eye gets smaller is correct?

	circular muscles	radial muscles
A	contract	contract
B	contract	relax
C	relax	contract
D	relax	relax

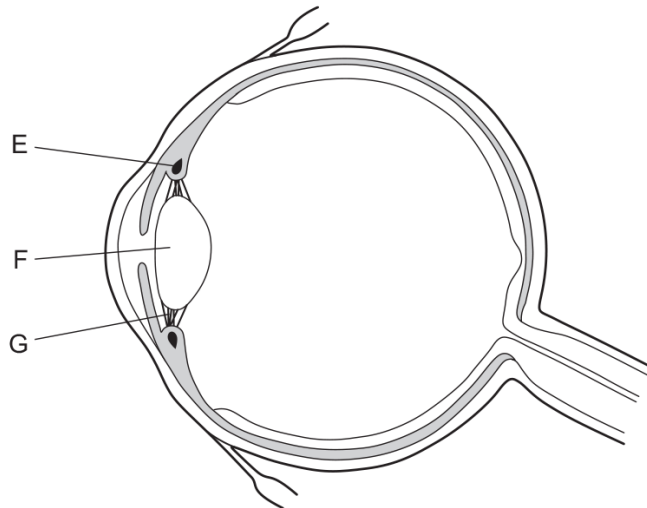
18. 0610_s18_qp_22 Q: 24

Which row describes accommodation when viewing a near object?

	ciliary muscles	suspensory ligaments	lens shape
A	contracted	slackened	more spherical
B	contracted	tight	more spherical
C	relaxed	slackened	less spherical
D	relaxed	tight	more spherical

19. 0610_s18_qp_23 Q: 24

The diagram shows the cross-section of an eye.



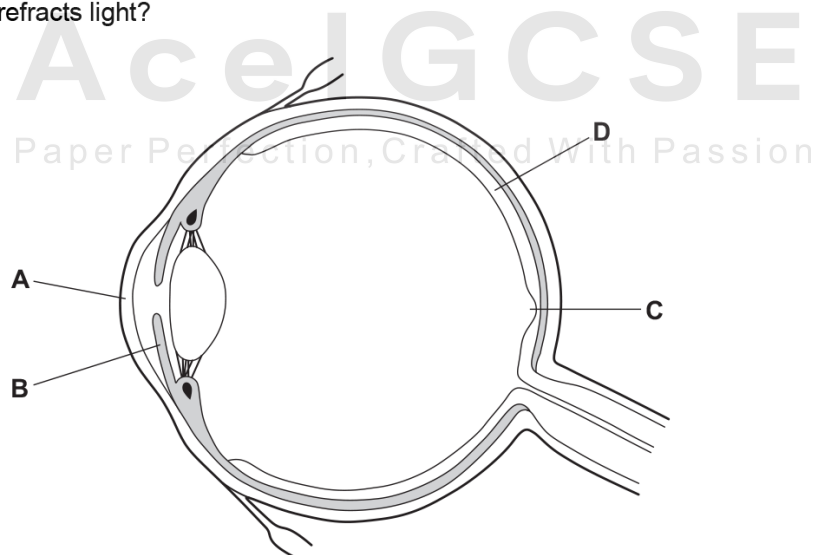
Which statement is true when a person views a near object?

- A E contracts; G is pulled less; F bulges less; more refraction of light takes place
- B E contracts; G is pulled less; F bulges more; more refraction of light takes place
- C E relaxes; G is pulled less; F bulges less; less refraction of light takes place
- D E relaxes; G is pulled more; F bulges more; less refraction of light takes place

20. 0610_w18_qp_21 Q: 23

The diagram shows the structure of the eye.

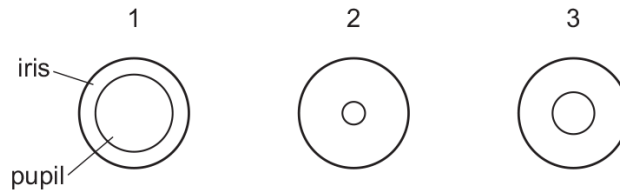
Which structure refracts light?



14.2. SENSE ORGANS

21. 0610_w18_qp_23 Q: 23

The diagram shows the appearance of the iris and pupil in three different light conditions.



Which row shows the size of the pupil of the eye in each light condition?

	no light	moderate light	bright light
A	1	2	3
B	1	3	2
C	2	1	3
D	3	2	1

22. 0610_s17_qp_21 Q: 24

How many different kinds of cone receptor and rod receptor are there in the human retina?

	types of cone receptor	types of rod receptor
A	1	1
B	1	3
C	3	1
D	3	3

23. 0610_s17_qp_22 Q: 24

Which responses occur in the iris of the eye when a person walks from a dimly lit area to a brightly lit area?

	circular muscle	radial muscle
A	contract	contract
B	contract	relax
C	relax	contract
D	relax	relax

24. 0610_s17_qp_23 Q: 24

Which is the light sensitive part of the eye?

- A cornea
- B iris
- C lens
- D retina

25. 0610_m16_qp_22 Q: 25

The fovea of the eye has three kinds of cones absorbing light of different colours.

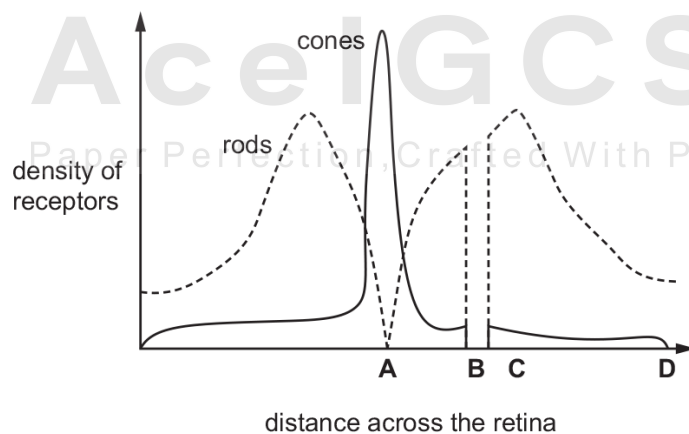
Which row is correct?

	type of cone stimulated			
	red sensitive	blue sensitive	green sensitive	colour seen
A	no	yes	yes	red
B	yes	no	yes	blue
C	yes	yes	no	green
D	yes	yes	yes	white

26. 0610_s16_qp_21 Q: 26

The diagram shows the density of rods and cones across a horizontal section of the retina.

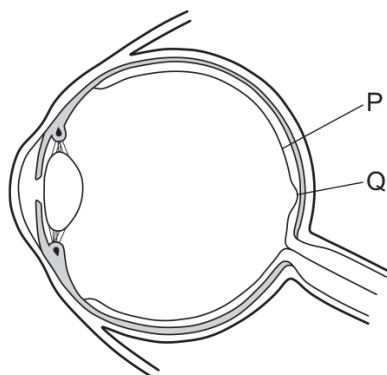
What is the position of the optic nerve?



14.2. SENSE ORGANS

27. 0610_w16_qp_21 Q: 25

The diagram shows a section through a human eye.

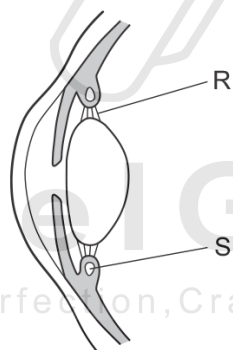


Good colour vision is a result of a high concentration of which type of cells at which position?

- A cones at P
- B cones at Q
- C rods at P
- D rods at Q

28. 0610_w16_qp_23 Q: 25

The diagram shows a vertical section through the front part of an eye when viewing a near object.



What describes structures R and S?

	R under tension	S contracted
A	✓	✓
B	✓	x
C	x	✓
D	x	x

SN	Paper	Q. No.	Answer
01	0610_m22_qp_22	26	D
02	0610_s21_qp_21	26	C
03	0610_s21_qp_23	26	B
04	0610_w21_qp_21	25	A
05	0610_w21_qp_22	27	B
06	0610_m20_qp_22	27	A
07	0610_p20_qp_20	22	B
08	0610_s20_qp_21	25	D
09	0610_s20_qp_22	24	C
10	0610_w20_qp_21	24	D
11	0610_w20_qp_23	24	D
12	0610_m19_qp_22	25	D
13	0610_s19_qp_21	26	C
14	0610_s19_qp_22	26	C
15	0610_s19_qp_23	26	C
16	0610_w19_qp_21	23	B
17	0610_m18_qp_22	20	B
18	0610_s18_qp_22	24	A
19	0610_s18_qp_23	24	B
20	0610_w18_qp_21	23	A
21	0610_w18_qp_23	23	B
22	0610_s17_qp_21	24	C
23	0610_s17_qp_22	24	B
24	0610_s17_qp_23	24	D
25	0610_m16_qp_22	25	D
26	0610_s16_qp_21	26	B
27	0610_w16_qp_21	25	B
28	0610_w16_qp_23	25	C



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