

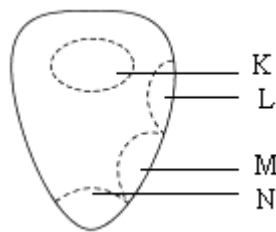
Paper 1

Answer **all** questions. Each question is followed by four options, **A, B, C** and **D**. For each question, choose **one** answer only.

1. Which of the following senses is **correctly** matched with its sensory organ?

<i>Sense</i>	<i>Sensory organ</i>
A Hearing	Tongue
B Taste	Skin
C Smell	Eye
D Touch	Skin

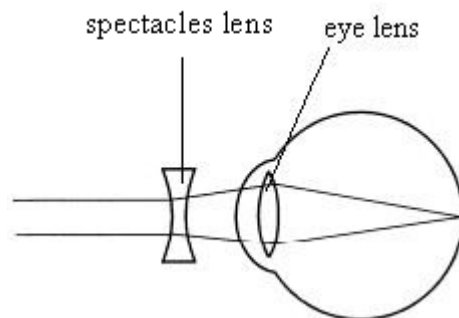
- 2.



The above diagram shows the areas of the tongue which are sensitive towards a certain taste. A student tastes honey with his tongue. Among the areas labelled *K, L, M* and *N* which will be stimulated?

- A** *K*
B *L*
C *M*
D *N*
3. Which part of the eye detects light stimulus?
A Iris
B Retina
C Cornea
D Pupil

- 4.



The diagram above shows the eye of a person who is short-sighted and the method to correct it. Among the following, what will happen to the image of the object if the person removes his/her

spectacles?

- I The image will be formed in front of the retina
- II The image will be reduced to a spot of light
- III The image will become brighter but less clear

- A I only
- B I and II only
- C II and III only
- D I, II, and III

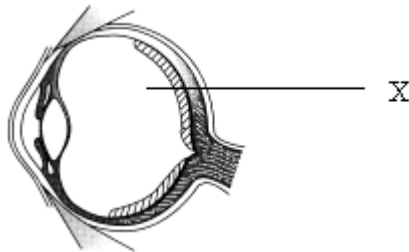
5. Which of the following is **not** correctly matched between the eye part and its function?

	Parts of the eye	Function
A	Sclera	Protects the eye and keeps its shape
B	Pupil	Controls the amount of light entering the eye
C	Retina	Detects light stimulus and converts it into nerve impulse
D	Yellow spot	The most sensitive part towards light

6. Which of the following shows the **correct** pathway of light entering the eye?

- A Cornea → Aqueous humour → Pupil → Lens → Vitreous humour → Retina
- B Cornea → Vitreous humour → Pupil → Lens → Aqueous humour → Retina
- C Cornea → Pupil → Aqueous humour → Lens → Vitreous humour → Retina
- D Cornea → Pupil → Vitreous humour → Aqueous humour → Lens → Retina

7.

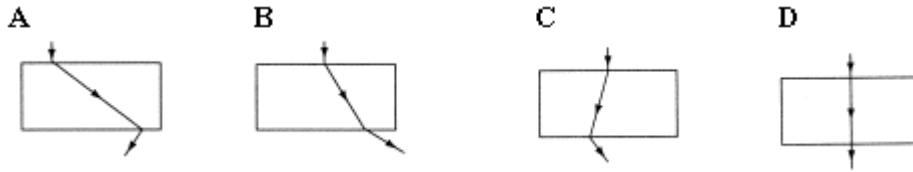


The above diagram shows a longitudinal section of the human eye. What is the function of the structure labelled X?

- A Protects the cornea
- B Sends nerve impulses to the brain
- C Avoids light reflection in the eye

D Maintains the shape of the eye and helps to focus the light onto retina

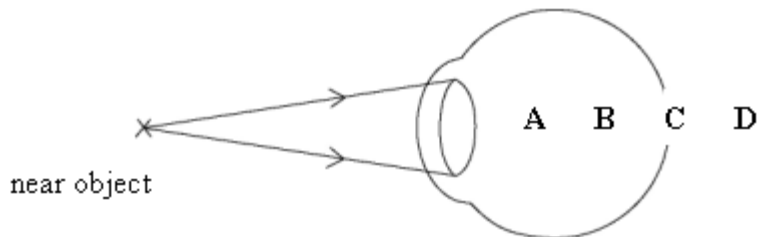
8. A beam of light is directed into a block of glass at right angles. Which of the following is the **correct** path of the ray of light?



9. Which of the following eye defects is caused by the irregular curvature of the cornea?

- A** Short-sightedness
- B** Night blindness
- C** Astigmatism
- D** Long-sightedness

10.

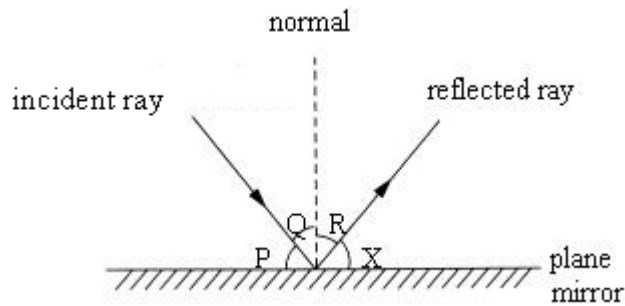


The diagram above shows the eye of a person who is long-sighted focusing a near object. Which of the points indicated by **A**, **B**, **C** and **D**, will the image fall on?

11. After reading a newspaper, a student looks towards the direction of a car that is far away from him. Among the following, which happens to his eyes?

- A** The pupil enlarges
- B** Less light enters the eye
- C** Eye lenses become thinner
- D** Focal length of the eye lenses shortens

12.



Among the angles indicated by *P*, *Q* and *R* in the diagram above, which is the same as the angle of *X*?

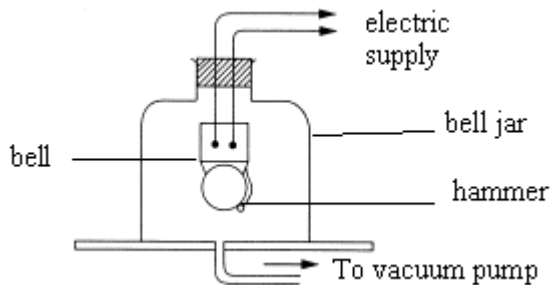
- I *P*
- II *Q*
- III *R*

- A I only
- B I and II only
- C II and III only
- D I, II, and III

13. Which of the following animals has the same type of vision as a cat?

- A Rabbit
- B Eagle
- C Deer
- D Goat

14.

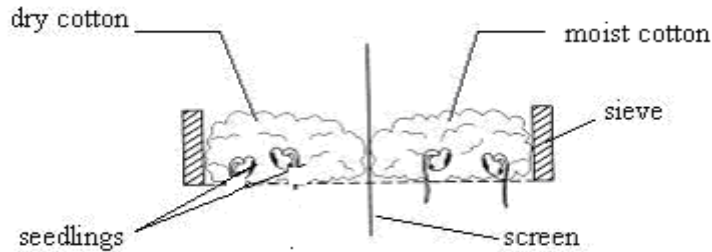


The diagram above shows an electric bell that is placed inside a bell jar. Electric current is switched on and the air inside the bell jar is removed with a vacuum pump. Among the following statements, which is **true**?

- A The hammer strikes the bell slower
- B The electric bell stops working
- C The sound weakens as more air is removed
- D The hammer stops striking when all the air is removed from the bell jar

15. Among the following characteristics of a surface, which will reflect sound least effectively?
- A Soft and rough
 - B Soft and smooth
 - C Hard and rough
 - D Hard and smooth

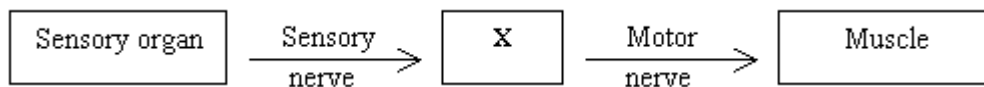
16.



The diagram above shows the set-up for an experiment. What is the conclusion that can be made from this experiment?

- A Roots responds more to geotropism than hydrotropism
 - B Roots responds more to phototropism than geotropism
 - C Roots responds more to hydrotropism than phototropism
 - D Roots responds more to hydrotropism than geotropism
17. Of the following senses, which can detect chemicals?
- I Smell
 - II Taste
 - III Touch
- A I only
 - B I and II only
 - C II and III only
 - D I, II, and III

18.



The diagram above shows the pathway of nerve impulses starting from the sensory organ until the muscle of a student contract to kick a ball. Which of the following represents part X?

- I Brain
 - II Spinal cord
 - III Gland
- A I only
 - B I and II only
 - C II and III only

D I, II, and III

19. Among the following, which is **true** about the blind spot in the human eye?

I Situated on the retina

II Does not have cells that are sensitive towards light

III Only functions in daytime

A I and II only

B I and III only

C II and III only

D I, II, and III

20. Among the following tropisms, which shows positive tropism by the roots of a plant?

I Phototropism

II Geotropism

III Hydrotropism

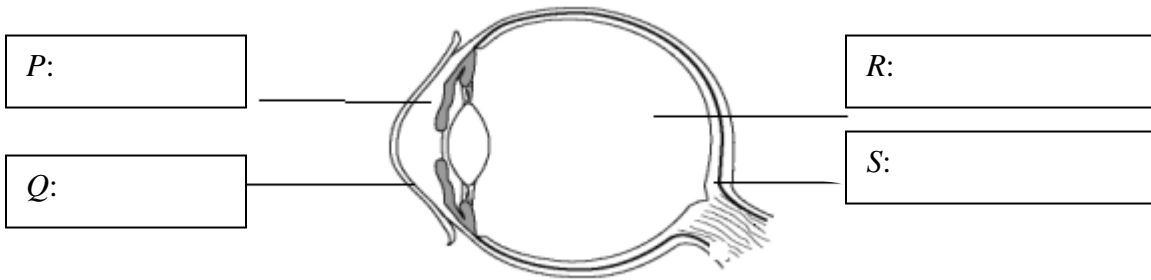
A I only

B I and II only

C II and III only

D I, II, and III

Paper 2
Answer the question.



The above figure shows the cross-section of the human eye.

(a) On the figure above, label organs *P*, *Q*, *R* and *S* using the following terms.

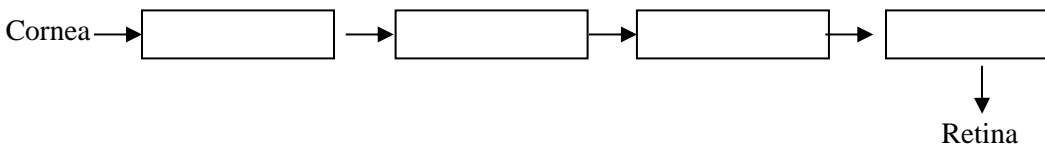
Cornea Vitreous humour Iris Retina

(b) *T* allows the light ray to enter the eye. Label *T* in the figure.

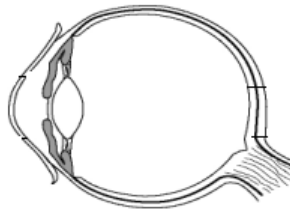
(c) Based on structures *P* and *R*, complete the table below.

Structure	Function of structure
<i>P</i>	
<i>R</i>	

(d) Complete the flow chart below to show the path of light rays entering the eye.



(e) Draw the formation of image in the eye of a long-sightedness person in the figure below.



Answers:

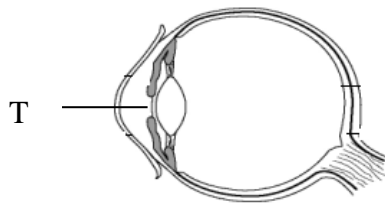
Paper 1

1	D	11	C
2	D	12	A
3	B	13	B
4	A	14	C
5	B	15	A
6	A	16	D
7	D	17	B
8	D	18	B
9	C	19	A
10	D	20	C

Paper 2

(a) *P*: Iris; *Q*: Cornea; *R*: Vitreous humour; *S*: Retina

(b)



(c) *P*: Controls the size of pupil; *R*: Maintains the shape of the eye

(d) Aqueous humour; Pupil; Lens; Vitreous humour

(e)

