



INDIAN SCHOOL AL WADI AL KABIR

Class: X

Department: Science

Date:14/06/2020

Marks: 30

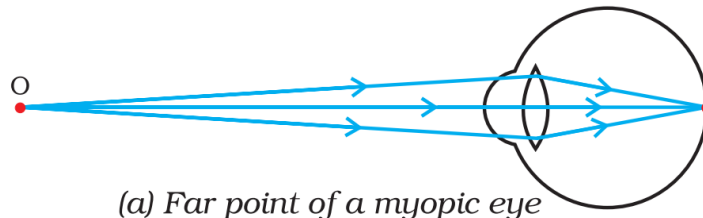
PRE-MIDTERM QP+ MS

DURATION:1 HOUR

PHYSICS

PASSAGE BASED QUESTIONS

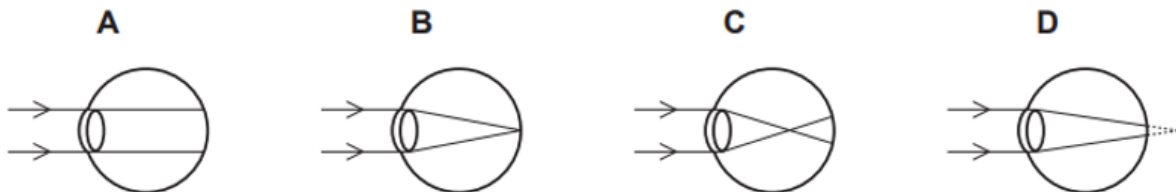
Myopia is also known as near-sightedness or short sightedness. A person with myopia can see nearby objects clearly but cannot see distant objects distinctly. A person with this defect has the far point nearer than infinity. Such a person may see clearly up to a distance of a few metres. In a myopic eye, the image of a distant object is formed in front of the retina and not at the retina itself. This defect may arise due to (i) excessive curvature of the eye lens, or (ii) elongation of the eyeball. This defect can be corrected by using a concave lens of suitable power. A concave lens of suitable power will bring the image back on to the retina and thus the defect is corrected.



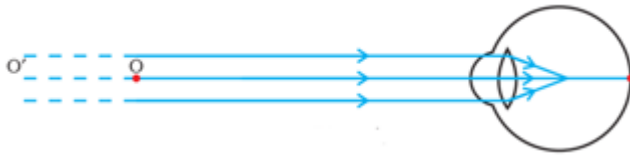
(a) Far point of a myopic eye

1. A man is short sighted.

Which ray diagram shows what happens in his eye when he looks at a distant object?

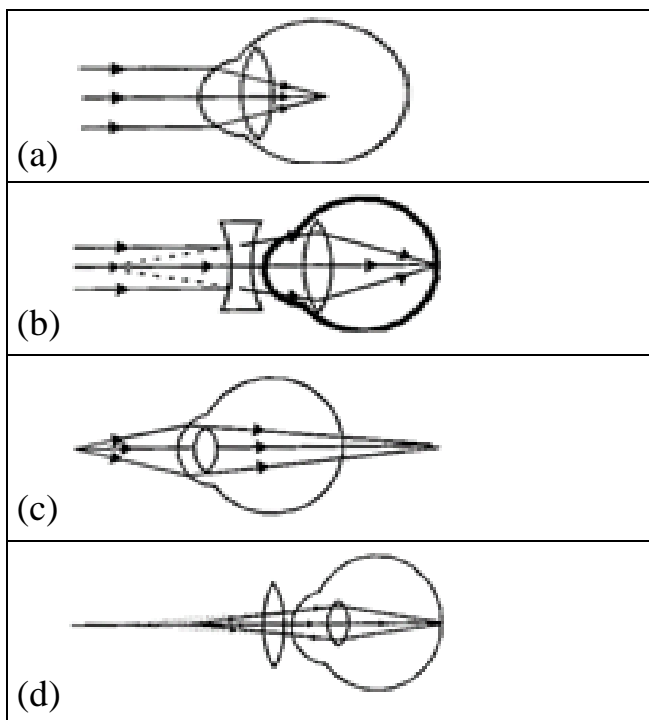


2. Observe the given diagram carefully. What could be the causes of this defect?



- | |
|---|
| (i) Excessive curvature of the eye lens. |
| (ii) The eyeball becomes too small. |
| (iii) The focal length of the eye lens is too long. |
| (iv) The eyeball becomes too long. |

- a) Only i and iii
 b) Only i and iv
 c) Only ii and iv
 d) Only iii and iv
3. Figures (a), (b), (c) and (d) respectively correspond to



- a) The myopic eye, the correction of hypermetropia, the hypermetropic eye and the correction of myopia
 b) The myopic eye, the correction of myopia, the hypermetropic eye and the correction of hypermetropia
 c) The hypermetropic eye, the correction of myopia, the myopic eye and the correction of hypermetropia
 d) None of these

ASSERTION REASON TYPE QUESTION

4. **Assertion:** - A normal human eye can clearly see all the objects below and above 25 cm

Reason: The human eye has the capacity to suitably adjust the focal length of its lens to a certain extent.

- a. Both A and R are true and R is the correct explanation of A.
 - b. Both A and R are true but R is not the correct explanation of A.
 - c. A is true but R is false.
 - d. A is false but R is true.
 - e. Both A and R are false
5. **Assertion:** - Sun appear reddish early in the morning
Reason: - Near the horizon, most of the blue light scattered away by the particles, the light that reaches the eye is of longer wavelengths.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is NOT the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.
- e. Both A and R are false

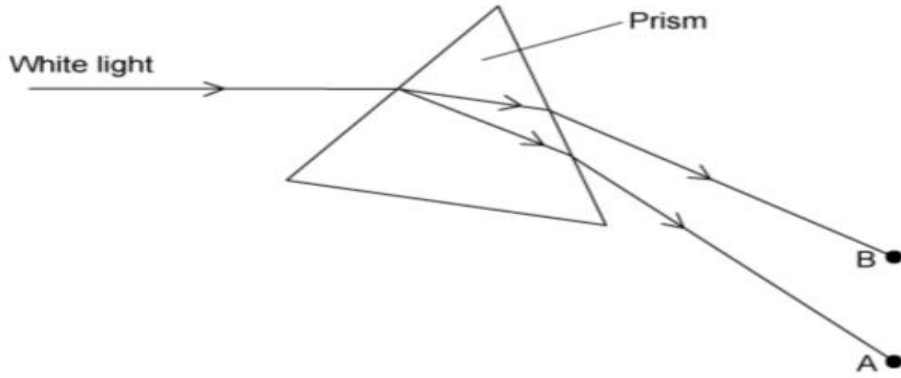
FILL IN THE BLANKS TYPE QUESTION

6. Refraction of light by the earth's atmosphere due to variation in air density is called _____

- (a) atmospheric reflection
- (b) atmospheric dispersion
- (c) atmospheric scattering
- (d) atmospheric refraction

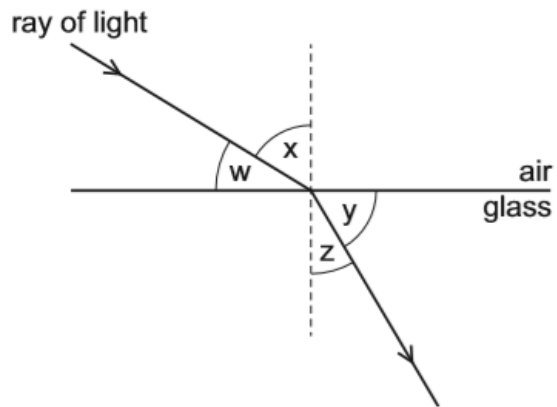
UNDERSTANDING BASED MCQ

7. The diagram shows the white light passing through the prism



Which of the following gives colours in the correct order from A to B?

- a) Red, Green, Violet
 - b) Red, Violet, Green
 - c) Violet, Red, Green
 - d) Violet, green, Red
8. The diagram shows a ray of light passing from air into glass.



Which labelled angles are the angle of incidence and the angle of refraction?

	angle of incidence	angle of refraction
A	w	y
B	w	z
C	x	y
D	x	z

KNOWLEDGE BASED MCQ

9. The danger signals installed at the top of tall buildings are red in colour. These can be easily seen from a distance because among all other colours, the red light

- (a) is scattered the most by smoke or fog
- (b) is scattered the least by smoke or fog
- (b) is absorbed the most by smoke or fog
- (c) moves fastest in air

10. Match the column I with column II and select the correct option from the codes given below.

Column I	Column II
(a) Pupil	(i) Brings about changes in the shape of crystalline lens
(b) Iris	(ii) Regulates and controls the amount of light entering the eye
(c) Retina	(iii) Controls the size of the pupil
(d) Ciliary muscles	(iv) where the image is formed

- a) (a)-(iv), (b)-(iii), (c)-(ii), (d)- (i)
- b) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
- c) (a)-(ii), (b)-(iii), (c)-(iv), (d)- (i)
- d) (a)-(iv), (b)-(i), (c)-(ii), (d)- (iii)

CHEMISTRY

KNOWLEDGE BASED MCQ

11. The incomplete combustion of coal and petroleum

- (i) Increases air pollution
- (ii) Increases efficiency of machines
- (iii) Reduces global warming
- (iv) Produce poisonous gases

- (a) (i) and (iii)
- (b) (i) and (iv)
- (c) (ii) and (iii)
- (d) (iii) and (iv)

12. The advantages of the water stored in the ground is

- (a) It does not evaporate, but spreads out to recharge wells and provides moisture for vegetation over a wide area
- (b) it does not provide breeding grounds for mosquitoes like stagnant water collected in ponds or artificial lakes

(c) is relatively protected from contamination by human and animal waste.

(d) All of the above

ASSERTION REASON TYPE QUESTION

13. **Assertion:** Li, Na and K are triads.

Reason: The average of the atomic masses of Li and K is approximately equivalent to the atomic mass of Na.

- a. Both A and R are true and R is the correct explanation of A.
- b. Both A and R are true but R is NOT the correct explanation of A.
- c. A is true but R is false.
- d. A is false but R is true.
- e. Both A and R are false

MATCH THE COLUMN TYPE MCQ

14. Column II give the group to which the element in column I belong to. Match them correctly.

Column I	Column II
(a) Nitrogen	16
(b) Chlorine	15
(c) Aluminium	17
(d) Oxygen	1
(e) Sodium	13

UNDERSTANDING TYPE QUESTIONS

15.



Give the letter that represents an atom of an element in group 14 of the periodic table.

16. An element belongs to group 2 and period 3. How many shells are present for the element? (Express your answer in numerical value only)

BIOLOGY

KNOWLEDGE BASED MCQ

17. Autotroph: ? :: Producer : Decomposer

- (a) Saprotroph
- (b) Heterotroph
- (c) Consumer
- (d) Secondary consumer

18. In the food chain given below, suppose the amount of energy at the fourth trophic level is 5kJ. What will be the energy level available at the producer level?

- (a) 500kJ (b) 50kJ (c) 5000kJ (d) 5kJ

ASSERTION & REASONING

19. **Assertion:** Flow of energy in a food chain is unidirectional.

Reason: Energy captured by autotrophs does not revert back to the solar input and it passes to the herbivores.

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.

20. **Assertion:** Ozone is both beneficial and damaging.

Reason: Stop the release of chlorofluorocarbons to protect the ozone.

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.

FILL IN THE BLANK



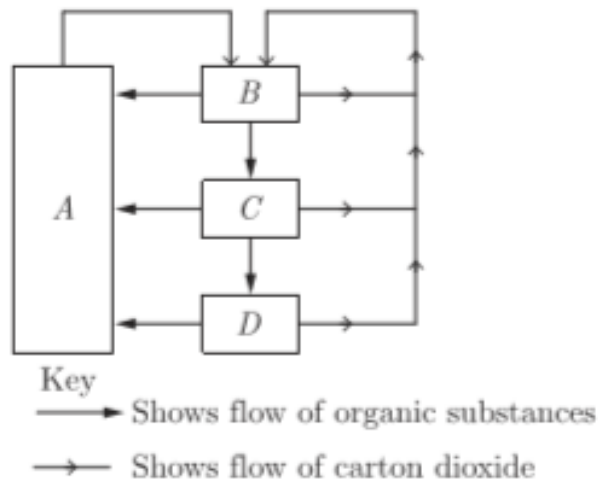
21. In the given figure, _____ is the secondary consumer.
- (a) Carrots
 - (b) Rabbit
 - (c) Fox
 - (d) Lion

PASSAGE BASED MCQ/CASE STUDY BASED/GRAPH BASED

22. It has been estimated that on an average, about one percent of the total sun's energy reaching the earth is trapped by green plants during the process of photosynthesis. This energy is stored as carbohydrates. Some of the trapped energy is used by the plants in performing metabolic activities and a lot more is lost as heat into the atmosphere.

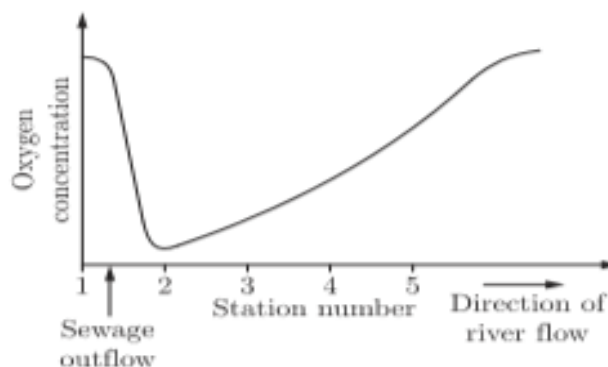
Which of the following is related to the above passage –

- (a) The above passage is about 1% law.
 - (b) The above passage is about 10% law.
 - (c) The above passage is about 100% law.
23. The diagram represents the flow of substances within a balanced ecosystem. The boxes are the various trophic levels. Which box represents the producers?



- (a) B (b) D (c) A (d) C

24. Study the graph given below. It shows the concentration of oxygen in a river, measured at stations 1-5 each 500m apart. A sewage outflow is observed just after station 1. At which stations will the concentration of organic matter be lowest?



- (a) 1 and 5 (b) 2 and 3 (c) 3 and 4 (d) 4 and 5

UNDERSTANDING BASED MCQ

25. What is accumulation of non-biodegradable pesticides in an aquatic food chain in increasing amount at each trophic level called?

- (a) Pollution
 (b) Eutrophication
 (c) Bio-magnification
 (d) Accumulation

26. How is the flow of energy always in an ecosystem?

- (a) Bidirectional
- (b) Unidirectional
- (c) No specific direction
- (d) multidirectional

MARKING SCHEME

Qn No:	ANSWER KEY	MARKS				
1	C	1 mark				
2	(b) Only i and iv	1 mark				
3	(b) The myopic eye, the correction of myopia, the hypermetropic eye and the correction of hypermetropia	1 mark				
4	(d) A is false but R is true.	1 mark				
5	(a) Both A and R are true and R is the correct explanation of A.	1 mark				
6	(d)- atmospheric refraction	1 mark				
7	(d) Violet, green, Red	1 mark				
8	D-x,z	1 mark				
9	(b) is scattered the least by smoke or fog	1 mark				
10	c) (a)-(ii), (b)-(iii), (c)-(iv), (d)- (i)	1 mark				
11	(b) (i) and (iv)	1 mark				
12	(d) All of the above	1 mark				
13	(a) Both A and R are true and R is the correct explanation of A.	1 mark				
14	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Column I</td> <td style="width: 50%; text-align: center;">Column II</td> </tr> <tr> <td style="text-align: center;">(a) Nitrogen</td> <td style="text-align: center;">15</td> </tr> </table>	Column I	Column II	(a) Nitrogen	15	1×5=
Column I	Column II					
(a) Nitrogen	15					

		(b) Chlorine	17		5 marks
		(c) Aluminium	13		
		(d) Oxygen	16		
		(e) Sodium	1		
15	C				1 mark
16	3				1 mark
17	(a) Saprotroph				1 mark
18	(c) 5000KJ				1 mark
19	(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).				1 mark
20	(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).				1 mark
21	(c) Fox				1 mark
22	(b) The above passage is about 10% law.				1 mark
23	(a) B				1 mark
24	(a) 1 and 5				1 mark
25	(c) Bio-magnification				1 mark
26	(b) Unidirectional				1 mark