

NEET NEURAL CONTROL AND COORDINATION — SENSORY RECEPTION: EYE (OLD SYLLABUS) — PYQS

Max. Marks: 60

Questions: 15

Section A (MCQ) — 15 questions

Q.1 Match **List I** with **List II** with respect to human eye.

[NEET (UG) 2023]

List I		List II	
A.	Fovea	I.	Visible coloured portion of eye that regulates diameter of pupil.
B.	Iris	II.	External layer of eye formed of dense connective tissue.
C.	Blind spot	III.	Point of greatest visual acuity or resolution.
D.	Sclera	IV.	Point where optic nerve leaves the eyeball and photoreceptor cells are absent.

- (1) A-IV, B-III, C-II, D-I (2) A-I, B-IV, C-III, D-II
(3) A-II, B-I, C-III, D-IV (4) A-III, B-I, C-IV, D-II

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Q.2 Which of the following statements is correct?

[NEET (UG) 2019]

- (1) Cornea is convex, transparent layer which is highly vascularised
- (2) Cornea consists of dense matrix of collagen and is the most sensitive portion of the eye.
- (3) Cornea is an external, transparent and protective proteinaceous covering of the eye-ball
- (4) Cornea consists of dense connective tissue of elastin and can repair itself.

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Q.3 The transparent lens in the human eye is held in its place by

[NEET 2018]

- (1) smooth muscles attached to the ciliary body
- (2) ligaments attached to the ciliary body
- (3) ligaments attached to the iris
- (4) smooth muscles attached to the iris

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Q.4 Good vision depends on adequate intake of carotene rich food.

Select the best option from the following statements.

- A. Vitamin A derivatives are formed from carotene.
- B. The photopigments are embedded in the membrane discs of the inner segment.
- C. Retinal is a derivative of vitamin A.
- D. Retinal is a light absorbing part of all the visual photopigments.

[NEET 2017]

- (1) A, C and D only (2) A and C only
(3) B, C and D only (4) A and B only

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Q.5 Photosensitive compound in human eye is made up of

[NEET 2016 (Phase 1)]

- (1) opsin and retinol
- (2) transducin and retinene
- (3) guanosine and retinol
- (4) opsin and retinal.

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Q.6 Choose the correct statement. [NEET 2016 (Phase 2)]

- (1) Nociceptors respond to changes in pressure.
- (2) Meissner's corpuscles are thermoreceptors.
- (3) Photoreceptors in the human eye are depolarised during darkness and become hyperpolarised in response to the light stimulus.
- (4) Receptors do not produce graded potentials.

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Q.7 In mammalian eye, the 'fovea' is the center of the visual field, where

[AIPMT 2015]

- (1) only rods are present
- (2) more rods than cones are found
- (3) high density of cones occur, but has no rods
- (4) the optic nerve leaves the eye.

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Q.8 Which one of the following statements is not correct?

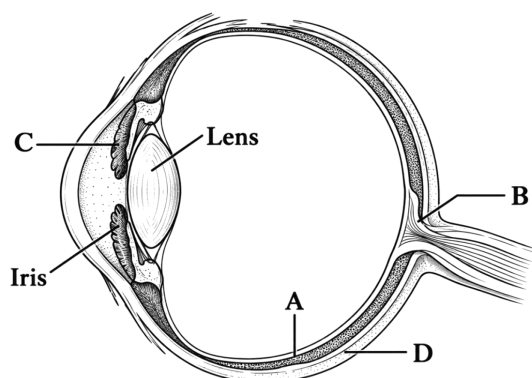
[AIPMT 2014]

- (1) Retinal is the light absorbing portion of visual photo pigments.
- (2) In retina the rods have the photopigment rhodopsin while cones have three different photopigments.
- (3) Retinal is a derivative of vitamin C.
- (4) Rhodopsin is the purplish red protein present in rods only.

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- Q.9** Parts A, B, C and D of the human eye are shown in the diagram. Select the option which gives correct identification along with its functions/characteristics. [NEET 2013]



- (1) B - Blind spot - Has only a few rods and cones.
- (2) A - Retina - Contains photoreceptors, i.e., rods and cones.
- (3) C - Aqueous chamber - Reflects the light which does not pass through the lens.
- (4) D - Choroid - Its anterior part forms ciliary body.

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- Q.10** The purplish red pigment rhodopsin contained in the rod type of photoreceptor cells of the human eye, is a derivative of [AIPMT 2011 (Prelims)]
- (1) vitamin B₁
 - (2) vitamin C
 - (3) vitamin D
 - (4) vitamin A

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- Q.11** Cornea transplant in humans is almost never rejected. This is because [AIPMT 2008]
- (1) it is composed of enucleated cells
 - (2) it is a non-living layer
 - (3) its cells are least penetrable by bacteria
 - (4) it has no blood supply

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- Q.12** Which one of the following is the correct difference between rod cells and cone cells of our retina?

[AIPMT 2008]

	Rod cells	Cone cells
(1) Overall function	Vision in poor light	Colour vision and
	Rod cells	Cone cells
(2) Distribution	More concentrated in centre of retina	Evenly distributed
	Rod cells	Cone cells
(3) Visual acuity	High	Low
	Rod cells	Cone cells
(4) Visual pigment contained	Iodopsin	Rhodopsin

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- Q.13** When we migrate from dark to light, we fail to see for some time but after a time visibility becomes normal. It is an example of [AIPMT 2001]

- (1) accommodation
- (2) adaptation
- (3) mutation
- (4) photoperiodism

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- Q.14** Which of the following statements is the characteristic of human cornea? [AIPMT 2001]

- (1) It is secreted by conjunctiva and glandular layer.
- (2) It is a lacrimal gland which secretes tears.
- (3) Blood circulation is absent in cornea.
- (4) In old age it becomes the cause of cataract.

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- Q.15** Which food should be eaten during deficiency of rhodopsin in eyes? [AIPMT 2000]

- (1) Carrot and ripe papayas
- (2) Guava, banana
- (3) Mango and potato
- (4) None of the above

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	4	3	2	1	4	3	3	3	2	4	4
Ques.	12	13	14	15							
Ans.	1	2	3	1							