CS/B.OPTM/SEM-2/BO-202/2011

2011

PHYSIOLOGY (OCULAR)

Time Allotted : 3 Hours   Full Marks : 70

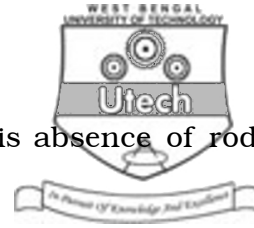*The figures in the margin indicate full marks.*

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Objective Type Questions)

1. Answer the following questions :   10 × 1 = 10

    A) Choose the correct alternatives for the following :

    i)   The farthest distance which an eye can see clearly without accommodation is called

    a)   Infinity   b)   Far point

    c)   Near point   d)   Nodal point.

    ii) The mucin layer of tear film is derived from

    a)   meibomian gland

    b)   conjunctival goblet cell

    c)   lacrimal gland

    d)   none of these.

2055   [Turn over

iii) The area of retina where there is absence of rods & cone cells is called

    a)   Macula   b)   Fovea

    c)   Blind spot   d)   none of these.

iv) The formation of aqueous humour takes place in

    a)   retina   b)   ciliary processes

    c)   choroids   d)   sclera.

v) Trichromatism refers to

    a)   normal colour vison

    b)   colour blindness

    c)   defective colour vision

    d)   none of these.

vi) All are true about pupil *except* that it

    a)   controls the entry of light

    b)   minimizes spherical aberration

    c)   increases the depth of focus

    d)   determines the colour of the eye.

vii) The function of superior rectus muscle is

    a)   depression

    b)   extortion

    c)   adduction

    d)   none of these.

viii) All the following are true about Presbyopia *except*

a) receding of near point

b) decrease in amplitude of accommodation

c) requires glasses for near vision

d) is a type of refractive error.

B) Fill in the blanks of the following :

ix) Primary action of superior oblique is ....

x) The nucleus of amacrine and horizontal cell is found in .... layer of retina.

GROUP – B

(Short Answer Type Questions)

Write short notes on any *three* of the following.

$3 \times 5 = 15$

2. E.R.G. and E.O.G.

3. Blood retinal barrier.

4. Maurice and Goldman's theory.

5. Microscopic structure of ciliary body.

GROUP – C

(**Long Answer Type Questions**)

Answer any *three* of the following.   3 × 15 = 45

6. What is vitreous humour ? Discuss its composition and functions.

7. a)   Discuss the Trabecular Pathway of Aqueous outflow.

    b)   Discuss briefly the structure and function of the visual cortex.   5 + 10

8. Discuss the organisation, function and regional peculiarities of the retina.

9. a)   Describe the supranuclear control of eye movements.

    b)   Give the attachments (origins and insertions), actions and nerve supply of the different extraocular muscles in a table/tabular format.

    c)   What is yoke muscle ? Give an example.   5 + 8 + 2