WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 5th Semester Examination, 2020, held in 2021

PHYACOR11T-Physiology (CC11)

Special Senses

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer any *five* questions from the following   8×5 = 40

1. (a) Distinguish between different types of papillae in human tongue.   2

    (b) Give a short description on the structure of taste buds.   3

    (c) How can taste buds be innervated?   3

2. (a) What is selective taste blindness?   2

    (b) Describe the transduction process for bitter taste.   4

    (c) Write the functions of tympanic membrane.   2

3. (a) What is otolith organ? Write its functions.   2+2

    (b) Describe the role of cochlea in transmission of sound waves.   4

4. (a) How is action potential developed in afferent nerves of organ of Corti?   5

    (b) What is olfactory binding protein? Write its function.   1+2

5. (a) Write the structural peculiarities of rod and cone cells.   4

    (b) What are the different types of bipolar cells?   2

    (c) Why optic disc is called blind spot?   2

6. (a) Name the different parts of ciliary body.   2

    (b) What is negative after image?   2

    (c) Write the importance of Young-Helmholtz theory in describing physiological basis   4
        of colour vision.

7. (a) What is visual acuity? Describe the different factors which may affect visual acuity.   2+4

   (b) What is presbyopia?   2

8. (a) What is transducin? Write its role in photochemical changes of rod cells.   1+3

   (b) Describe the role of pupillary constriction in the process of accommodation.   2

   (c) What is aptitude of accommodation?   2

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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