

**INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO, RAJAGIRIYA**  
**BAMS LEVEL II – SECOND SEMESTER EXAMINATION – JANUARY 2017**  
**SHAREERA KRIYA (PHYSIOLOGY & BIOCHEMISTRY) - IV**  
**COURSE CODE – AS 2202**

**Time: 2 1/2 hours**  
**(9.45 a.m – 12.15 p.m)**

**Index no**

**Answer all questions**

**Structured Questions**

1. a. Compare and contrast four (04) structural/functional characteristics of cones of retina with those of rods.

**(04 Marks)**

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- b. Describe the role of vitamin in the functioning of visual receptors.

**(02 Marks)**

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2. Briefly describe the following

a. Three mechanisms present in the ear for increasing loudness of sound waves.  
(03 Marks)

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b. How impulses are generated in taste buds by different taste modalities.  
(04 Marks)

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3. Describe the physiological basis of the following.

a. Dark adaptation

(03 Marks)

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b. Referred pain

(04 Marks)

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4. Write short notes on the following

a. Types of sleep

( 03 Marks)

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b. Types of aphasia

( 04 Marks)

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5.

a. Mention the site of origin of following lipoproteins in the human body  
(e.g. Intermediate Density Lipo Protein/IDL - in blood vessels) (04 Marks)

i. Very Low Density Lipoprotein (VLDL)

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ii. Low Density Lipoprotein (LDL)

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iii. High Density Lipoprotein (HDL)

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iv. Chylomicron

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b. List 03 advises you would give to a patient to increase the plasma level of HDL  
(03 Marks)

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6.  
a. List 4 factors which decide the velocity of an enzymatic reaction (02 Marks)

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- b. What are isoenzymes? (01 Mark)

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- c. Which organ in the body can be detected by checking following plasma isoenzymes (03 Marks)

- i. ALT (Alanine transaminase) .....
- ii. CKMB (Creatine Kinase MB isozyme) .....
- iii. CKBB (Creatine Kinase BB isozyme) .....

#### Essay Questions

1. Describe how a neural impulse that has reached the presynaptic ending of a motor nerve fiber brings about contraction of skeletal muscle fibres in a motor unit.

(GUIDE- Following aspects need to be included: Structures, neuro-transmitter/s , ion channels and different ions involved in the process, and actin-myosin interaction)

(20 Marks)

2. Describe how visual impulses are generated by photo- receptors and transmitted to visual cortex.

(20 Marks)