

**Reg. No:09-04-2015**

**Date:**

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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** |  |
| **B.Sc. ZOOLOGY - IV SEMESTER** |  |
| **SEMESTER EXAMINATION: APRIL 2019** |  |
| **ZO 415- Human Anatomy and Physiology** |  |
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| **Time : 1½ Hours**  |  |  **Max. Marks : 35** |
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|  **This paper contains two printed pages and three parts** |  |

**Note: Draw neat labelled diagrams wherever necessary**

**Indicate the question numbers clearly.**

**PART A**

 **Answer the following 5 X 1 = 5**

1. The conduction of nerve impulse is faster in a \_\_\_\_\_\_\_\_\_\_\_\_ nerve fiber
2. α- alpha b) Non myelinated c) Myelinated d) β- Beta
3. Olfactory lobes in the brain are well developed in
4. Fish b) Frog c) Lizard d) Pigeon
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hormone in human body is antagonistic to Calcitonin
6. Thyroxin b) Adrenalin c) GH d) Parathyroid
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ receptor in the ear regulates the dynamic equilibrium

 a) Organ of Corti b) Fovea c) Macula d) Crista ampullaris

1. Choose the correct answer from the following
2. Synaptic bulbs 1. Venous blood
3. Neuroglia 2. Foetal heart
4. Heart of Shark 3. CNS
5. Foramen ovale 4. Neurotransmitters
6. A3, B1, C4, D2 b) A4, B3, C1, D2

 c) A3, C1, D4, B2 d) A2, B1, C4, D2

**PART B**

 **Answer any FOUR of the following** **4 X 5 = 20**

1. A student sitting in the last bench of a class room cannot visual the blackboard clearly. Identify and explain the physiological condition of the student and suggest a suitable corrective measure.
2. Compare and give reasons for the following, based on the evolutionary changes
3. Auricles of Pisces and Amphibian
4. Glomerulus in Pronephric and Metanephric kidney
5. Why is Neurohypophysis termed as a releasing center and not a secreting center? Add a note on the function of Vasopressin.
6. a) With a neat labelled diagram, explain ‘decussation of the pyramids’ and mention its outcome.

b) In which part of the brain do you find the following:

1. Corpora quadrigemina
2. Corpus callosum
3. Arbor vitae
4. Diencephalon
5. Explain the following in 1 or 2 sentences:
6. Photosensitive cells
7. Macula
8. Prolactin
9. Adrenaline
10. Ceruminous glands
11. a) Mention any two supporting cells of the CNS and give its function.
12. List any two criteria for a chemical to be labelled as a Neurotransmitter.

**PART C**

 **Answer any ONE of the following 1 X 10 =** 1**0**

1. With a neat labelled diagram, explain in detail the mechanism of nerve impulse propagation along the axon.
2. Explain the structure of cochlea with reference to the mechanism of hearing.

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