

UNIVERSITY OF BUEA
FACULTY OF SCIENCE
SECOND SEMESTER EXAMINATIONS FOR 2008/2009 SESSION

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| DEPARTMENT: PAS | COURSE INSTRUCTORS: Salah, Etchu |
| MONTH: July 2009 | COURSE CODE: ZOO 406 |
| DATE: 09/07/09 | COURSE TITLE: Comparative Vertebrate Physiology II |
| TIME ALLOWED: 3 Hours | DURATION: 8.00-11.00 |
| INSTRUCTIONS: Answer all the two Questions | |

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(1) (a) Using tables only, differentiate between:

(i) Excitation-contraction coupling in skeletal and smooth muscles.

(6 Marks)

(ii) Resting and Action Potential. (6 Marks)

(iii) EPSP and IPSP. (6 Marks)

(iv) Voltage-gated and Ligand-gated ion channels. (2 Marks)

(b) (i) Define the term “ Neurotransmitter”. (2 Marks).

(ii) Lists the characteristics of Neurotransmitter (5 Marks)

(iii) Describe the role of the following neurotransmitters as applied to neurophysiology: (-Ach, -Dopamine, -Noradrenaline, -Adrenaline, -Serotonine, -Histamine, -Glutamate, -GABA, -Glycine, -Neuropeptide (10 Marks).

(iv) Describe the different synaptic arrangements in mammals? (2 Marks)

(Total 35 Marks)

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(2) (a) With the aid of a diagram describe the hepatic portal system in man. (10 Marks)

(b) Giving example(s) in each case describe and highlight the functions of the under listed specialized cells of the immune System.

(i) Phagocytes. (5 Marks)

(ii) Lymphocytes. (10 Marks)

(c) Intercellular communication is subdivided into four classes, Discuss .(10 Marks)

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(Total 35 Marks)

Grand Total: 70 Marks

.....**Good Luck**.....