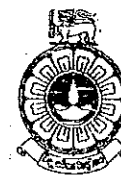


THE OPEN UNIVERSITY OF SRI LANKA  
B.Sc. DEGREE PROGRAMME  
FINAL EXAMINATION 2016/2017  
COURSE TITLE: HUMAN BIOLOGY  
COURSE CODE: ZLU3185



DATE: 11<sup>th</sup> January 2018

TIME: 1.30 p.m. – 3.30 p.m.

ANSWER ANY FOUR (4) QUESTIONS.  
ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. Jayanthi Kuru-Uthumpala created history by becoming the first Sri Lankan to reach the summit of the Mount Everest in May 2016. Explain the adjustments likely to have occurred in her body during the climb to face the high altitude conditions of the surrounding environment.
2. Justify the following statements.
  - i) Human vertebral column and foot are adapted to facilitate bipedal locomotion
  - ii) Heart rate of human can be regulated by nervous control
3. As a Science graduate, you get the opportunity to teach reproductive biology to a group of school children. Prepare an outline of a lesson to teach the following.
  - i) Sequence of changes that occurs every month in the ovaries of a non-pregnant female
  - ii) Oral contraceptives that interfere with the above cyclical events in a female
4. Compare between each of the following.
  - i) Apocrine sweat glands and Eccrine sweat glands
  - ii) Olfactory receptors and Taste receptors
5. Explain why acquired immunity is more efficient in defence than innate defence responses, with reference to the fundamental features of these two defence mechanisms.
6. Write notes on two (02) of the following.
  - a) Obesity
  - b) *Homo erectus*
  - c) Sensory and motor domains of the cerebral cortex

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