

THE OPEN UNIVERSITY OF SRI LANKA  
B.Sc. DEGREE PROGRAMME  
FINAL EXAMINATION 2014/2015  
COURSE TITLE: HUMAN BIOLOGY  
COURSE CODE: ZLU3185 / ZOU3165



DATE: 28<sup>th</sup> October 2015

TIME: 1.30 p.m. – 3.30 p.m.

ANSWER ANY FOUR (4) QUESTIONS.

ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. The human anatomy has evolved to facilitate bipedal locomotion. Justify this statement.
2.
  - i) Outline the four main stages in the human fertilisation process.
  - ii) Write a brief account on contraceptives available for males.
3. Discuss why acquired immunity is more efficient in defence than innate responses, with reference to the fundamental features of these two defence mechanisms.
4. Compare between each of the following.
  - i) Olfactory receptors and Taste receptors
  - ii) Rods and Cones of the eye
5. A baby girl is shown to have the following features: Flattened face, protruding tongue and upward slanting eyes. On genetic testing, she is found to have three copies each of a particular chromosome in cells.
  - i) Identify the genetic abnormality.
  - ii) Explain the process by which this genetic abnormality arises, with suitable diagrams to illustrate the answer.
  - iii) Outline the tests available to detect such a genetic abnormality in a foetus.
6. Write notes on two (02) of the following.
  - a) Human pectoral girdle
  - b) Glomerular ultrafiltration
  - c) Oxygen-haemoglobin dissociation curve

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