

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF NATURAL SCIENCES
DEPARTMENT OF ZOOLOGY
B.Sc. /B.Ed. DEGREE PROGRAMME
FINAL EXAMINATION 2012/2013
HUMAN BIOLOGY - ZLU3185 / ZOU3165 / ZLE5185
DURATION: TWO HOURS



DATE: 9th December 2013

TIME: 1.30 p.m. – 03.30 p.m.

ANSWER ANY FOUR (4) QUESTIONS.

ILLUSTRATE ANSWERS WITH LABELLED DIAGRAMS WHERE NECESSARY.

1. 'Human kidney is involved in the hormonal regulation of water and sodium ion levels in the body'. Justify this statement.
2. Comment briefly on the following.
 - (i) Use of condoms is not only a contraceptive method but also a health protective behaviour.
 - (ii) Human skin is a multifunctional organ.
3. Explain the process known as nondisjunction of chromosomes and describe two human genetic syndromes caused by extra or missing sex chromosomes.
4. Compare between the immune responses developed in the following situations.
 - (i) When a child vaccinated against polio is subsequently exposed to the polio virus naturally.
 - (ii) When a person is given the BCG vaccine and when given an injection of snake anti-venom serum.
5. Write an account on female infertility.
6. Write notes on two (02) of the following.
 - (a) Adaptations of the human foot for bipedalism.
 - (b) *Homo erectus*.
 - (c) Sensory and motor domains of the cerebral cortex.
