

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. /B.Ed. DEGREE PROGRAMME
FINAL EXAMINATION 2011/2012
COURSE TITLE: HUMAN BIOLOGY
COURSE CODE: ZLU3185 / ZOU3165 / ZOE5165



DATE: 10TH January 2012

TIME: 9.30 a.m. – 11.30 a.m.

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

1. Review the contraceptives that interfere with follicular development and ovulation in a female.
2. Edmond Hilary is reported to have climbed Mount Everest without the continuous use of an oxygen apparatus. Explain how he would have adjusted to the conditions in the Everest without supplemental oxygen until he reached almost the very top and briefly describe the physiological changes likely to have occurred in his body during the climb.
3. Compare and contrast the fundamental features of the following.
 - (i) Antibody-mediated immune responses and Cell-mediated immune responses
 - (ii) Innate immunity and acquired immunity
4.
 - i) Aneuploidy in autosomes leads to genetic disorders in humans. Justify this statement.
 - ii) Comment briefly on the screening tests available for parents concerned about the genetic condition of a developing foetus.
5.
 - i) Explain the following terms: Metabolism, Anabolism and Catabolism.
 - ii) Outline the main catabolic and anabolic processes involved in the metabolism of triglycerides in our diet.
6. Write notes on two (02) of the following.
 - a) Sensory and motor domains of the cerebral cortex.
 - b) Human pectoral girdle.
 - c) Risk factors for heart disease.
