

**BOWEN UNIVERSITY IWO**  
**COLLEGE OF HEALTH SCIENCES**  
**PHYSIOLOGY PROGRAMME**  
**400LEVEL B.Sc. EXAMINATION**  
**First Semester, 2021/2022 SESSION**  
**PHS 405 (ENERGY BALANCE AND METABOLISM)**

**DATE:** March, 2022

**TIME:** 3Hours.

**INSTRUCTIONS:** \*Answer all questions \*Write your matriculation number clearly on every page of the answer booklet.

1. Discuss the regulation of body temperature (20 mks)
2. Discuss the physiological regulation of food intake and the associated pathways (20 mks)
3. Write short notes on the following:
  - a. The processes of heat production and heat loss (10 mks)
  - b. The inherited disorders of amino acid metabolism (10mks)
  - c. The effect of macronutrients on energy balance (10mks)