



**UTHM**  
Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER 1  
SESSION 2022/2023**

COURSE NAME : HUMAN PHYSIOLOGY

COURSE CODE : BEJ 35103

PROGRAMME CODE : BEJ

EXAMINATION DATE : FEBRUARY 2023

DURATION : 3 HOURS

INSTRUCTION :

1. ANSWER ALL QUESTIONS
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

**TERBUKA**

**CONFIDENTIAL**

- Q1** (a) Describe the following basic parts of neuron:
- (i) Cell body (2 marks)
  - (ii) Dendrites (2 marks)
  - (iii) Axon (2 marks)
- (b) List the **FIVE (5)** fight-or-flight body's responses. (5 marks)
- (c) According to a reflex arc, describe what happens when you step on a nail. (6 marks)
- (d) Explain the generation of a nerve impulse based on ionic basis of electrical signal. (8 marks)
- Q2** (a) List **THREE (3)** organs of the respiratory system. (3 marks)
- (b) Explain the mechanism of breathing which depends on muscular contraction, relaxation and change in lung pressure. (6 marks)
- (c) Sketch the internal view of a heart and label all the parts. (4 marks)
- (d) Distinguish the systemic and pulmonary blood circulation route. (6 marks)
- (e) Cardiovascular disease is a group of diseases affecting your heart and blood vessels. Discuss **THREE (3)** conditions related to cardiovascular diseases. (6 marks)
- Q3** (a) Compare the anatomy of skeletal muscle, smooth muscle and cardiac muscle. (9 marks)
- (b) Give an example of isotonic and isometric contraction and state the differences between those contractions. (6 marks)

(c) An unidentified human skeleton was found buried in a forest. Based on skeletal analysis, it was determined as a female skeleton. Discuss the finding. (5 marks)

(d) Osteoporosis is a health condition that causes weakens bone tissues and reduces bone density. Investigate **TWO (2)** causes of osteoporosis. (5 marks)

**Q4** (a) State **ONE (1)** function of hormones. (2 marks)

(b) Explain what is meant by negative feedback in reference to hormone regulation. (5 marks)

(c) Describe how hormones affect emotions. (4 marks)

(d) Compare the effects of luteinizing hormone (LH) and follicle-stimulating hormone (FSH) in men and women. (10 marks)

(e) Menopause is a condition when a woman's ovaries stop producing hormones and menstrual periods stop which could cause physiological and psychological effects to the patient. Describe the resulting effects. (4 marks)

**-END OF QUESTIONS -**

**TERBUKA**