

**FIS1601**

May/June 2015  
Mei/June 2015

**HUMAN ANATOMY AND PHYSIOLOGY  
MENSLIKE ANATOMIE EN FISILOGIE**

Duration 2 Hours  
Tydsduur 2 Uur

100 Marks  
100 Punte

EXAMINERS / EKSAMINATORE ·  
FIRST / EERSTE PROF J DEWAR  
SECOND / TWEEDE DR SL LEBELO

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Closed book examination.  
Toeboekeksamen

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This paper consists of 2 pages.

Hierdie vraestel bestaan uit 2 bladsye.

**ANSWER FIVE (5) OF THE FOLLOWING SEVEN (7) QUESTIONS**

**BEANTWOORD VYF (5) VAN DIE VOLGENDE SEWE (7) VRAE**

**Students must answer the questions in the examination answer book provided.**

**Studente moet die vrae in die eksamen-antwoordboek beantwoord.**

Dear student, take a deep breath, exhale and relax. Now you are ready to start answering the questions. All the best!

Geagte student, asem in, asem uit en ontspan. Nou is jy gereed om die vrae te beantwoord. Alles van die beste!

**QUESTION 1 / VRAAG 1****[20]**

- 1 1 Write brief notes on five of the body's organ systems. / Skryf kortliks oor vyf van die liggaam se orgaanstelsels. (10)
- 1 2 Briefly discuss human survival needs / Beskryf kortliks menslike oorlewensnodighede. (10)

**QUESTION 2 / VRAAG 2****2 x 10 = [20]**

The following is a list of body areas. Please indicate for each: (1) location in the body, (2) an associated bone and (3) an associated muscle. / Die volgende is 'n lys van liggaamsareas. Vir elkeen, dui aan: (1) posisie in die liggaam; (2) 'n assosieerde been en (3) 'n assosieerde spier.

- 2 1 Brachial / Brachiale  
2 2 Sternal / Sternale  
2 3 Gluteal / Gluteale  
2 4 Lumbar  
2 5 Femoral / Femorale  
2 6 Cervical  
2 7 Popliteal  
2 8 Orbital / Orbitale  
2 9 Inguinal / Inguinale  
2 10 Occipital / Oksipitale

**QUESTION 3 / VRAAG 3****[20]**

- 3 1 With the aid of a labeled diagram, describe the features of a human cell. / Met behulp van 'n benoemde diagram, beskryf die eienskappe van 'n menslike sel. (10)
- 3 2 Discuss how food is broken down in the digestive system. / Bespreek hoe kos in die verteringsstelsel afgebreek is. (10)

**QUESTION 4 / VRAAG 4****[20]**

Describe the muscles and bones that are involved in walking. / Bespreek die spiere en bene wat by stap betrokke is.

**QUESTION 5 / VRAAG 5****[20]**

Compare the functions of the innate immune system with that of the adaptive immune systems. / Vergelyk die funksies van die inheemse immuunstelsel met die van die verworwe immuunstelsel.

**QUESTION 6 / VRAAG 6****[20]**

Discuss how the liver and pancreas maintain normal blood glucose levels. / Bespreek hoe die pancreas en die lewer normale bloed suiker vlakke onderhou.

**QUESTION 7 / VRAAG 7****[20]**

Using labelled diagrams, describe the anatomy of the heart, lungs, urinary system and eye. / Met behulp van benoemde diagramme, bespreek die anatomie van die hart, longe, urinêrestelsel en oog.

TOTAL MARKS 100  
TOTALE PUNTE: 100