



PROGRAM : OPTOMETRY/NURSING

SUBJECT : HUMAN ANATOMY

CODES : HAN01A1/HAN1AY1/HAN1A10/HAN1A20

DATE : JUNE EXAMINATION
6 JUNE 2018

DURATION : 180 Minutes

WEIGHT : 50: 50

TOTAL MARKS : 100

EXAMINER : EE BRUWER

MODERATOR : P NKOMOZEPI

NUMBER OF PAGES : 4 PAGES

INSTRUCTIONS : QUESTION PAPER MUST BE HANDED IN.

INSTRUCTIONS TO CANDIDATES:

1. THIS PAPER CONSISTS OF TWO SECTIONS.
 2. ALL QUESTIONS MUST BE ANSWERED IN THE EXAMINATION SCRIPTS PROVIDED.
 3. THIS QUESTION PAPER MUST BE RETURNED WITH ALL YOUR EXAMINATION ANSWER SCRIPTS.
 4. MARK ALLOCATION: ½ MARK PER FACT UNLESS INDICATED OTHERWISE.
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SECTION A

QUESTION 1

Write a short note on the osteology of the structures/bones:

- 1.1 The anterior and posterior surfaces of the scapula. (4)
- 1.2 Typical thoracic vertebrae. (6)
- [10]**

QUESTION 2

Concerning the distal part of the humerus:

- 2.1 Describe the features found on the anterior, posterior and inferior parts of the humerus. (3½)
- 2.2 Classify the type of the joint 2.1. (1)
- 2.3 Discuss three (3) factors influencing the stability of joints. (5)
- [9½]**

QUESTION 4

Describe the structure of the female pelvis using the following characteristics:

- 4.1 Bone thickness. (1½)
- 4.2 Acetabula. (1)
- 4.3 Sacrum. (1½)
- 4.4 Pelvic inlet. (1)
- [5]**

QUESTION 5

List the carpals bones of the proximal and distal rows respectively from lateral to medial.

[4]

QUESTION 6

Provide a well-labelled diagram showing the general structure (foramina included) of the internal aspect of the middle cranial fossa .

[5½]

QUESTION 7

In a tabular format, compare (similarities) and contrast (differences) cardiac and skeletal muscle tissue using the following characteristics:

- Cell shape
- Nucleus number
- Nucleus location
- Striations
- Control
- Location in the body

[6]

QUESTION 8

In a tabular format, compare (similarities) and contrast (differences) the following characteristics of the three (3) different types of cartilage:

- Cell type
- Cell arrangement
- Most abundant fibre type
- Fibre visibility
- Perichondrium present
- Example of a location

[10]

SECTION A SUBTOTAL: 50 MARKS

SECTION B

QUESTION 1

Briefly describe the position and anatomy of the following structures:

- | | |
|-------------------------------|--------------|
| 1.1 Uveal layer of the eye. | (10) |
| 1.2 Auditory ossicles. | (4½) |
| 1.3 Caudate nucleus/ganglion. | (3) |
| 1.4 Oligodendrocytes | (4) |
| | [21½] |

QUESTION 2

Regarding Cranial nerve III (oculomotorius) answer the following:

- | | |
|--|-------------|
| 2.1 List the specific origin of NIII | (1) |
| 2.2 List the two types of fibers of NIII and name one clinical application of each. | (2) |
| 2.3 Provide a well-labelled diagram showing a cross section through the midbrain at the level of the origin of NIII. | (6½) |
| | [9½] |

QUESTION 3

In a tabular format, compare (similarities) and contrast (differences) the parasympathetic and Sympathetic nervous system using the following characteristics:

- The ganglia and corresponding cranial nerves.
 - Length of fibers.
 - Target organs including one example and associated function.
- [9]**

QUESTION 4

- | | |
|--|------------|
| 4.1 Provide a well-labelled diagram showing the visual pathway from origin to the termination in the occipital lobe. | (8) |
| 4.2 Name the structures in relation to the optic chiasm. | (1½) |
| 4.3 List one clinical implication of NII. | (½) |
| | [9] |

SECTION B SUBTOTAL: 50 MARKS

TOTAL: 100 MARKS
