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| <u>PROGRAM</u> | : BSC |
| <u>SUBJECT</u> | : HUMAN ANATOMY I |
| <u>CODE</u> | : HAN 1B10 |
| <u>DATE</u> | : JANUARY SUPPLEMENTARY EXAMINATION 9 JANUARY 2017 |
| <u>DURATION</u> | : 90 MINUTES |
| <u>WEIGHT</u> | : 50 : 50 |
| <u>TOTAL MARKS</u> | : 50 |
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| <u>EXAMINER</u> | : N JOOSTE |
| <u>MODERATOR</u> | : E SWANEPOEL |
| <u>NUMBER OF PAGES</u> | : 8 PAGES |
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| <u>INSTRUCTIONS</u> | : QUESTION PAPER MUST BE HANDED IN |
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| <u>REQUIREMENTS</u> | : 1 X EXAMINATION SCRIPT |
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INSTRUCTIONS TO CANDIDATES:

1. THIS PAPER CONSISTS OF 5 SECTIONS.
 2. ALL SECTIONS MUST BE ANSWERED IN THE SEPARATE EXAMINATION SCRIPT 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: ENDOCRINE

QUESTION 1

Match the endocrine gland in Column A to the histological structure in Column B. Write only the number and your appropriate letter in your answer books (i.e. 1.1. K). **[4]**

Column A

- 1.1. Pituitary
- 1.2. Thymus
- 1.3. Pancreas
- 1.4. Thyroid
- 1.5. Parathyroid
- 1.6. Adrenal gland

Column B

- A. Parafollicular cells
- B. Zona fasciculata
- C. T-lympocytes
- D. Oxyphil cells
- E. Adenohypophysis
- F. Beta cells
- G. Pseudostratified epithelium

QUESTION 2

Explain the significance of the rich blood supply of the endocrine glands by making use of a definition of an endocrine gland. **[1]**

QUESTION 3

Describe the anatomy (micro- and macroscopic) of the parathyroid glands. **[2]**

QUESTION 4

List the layers of the adrenal gland from external to internal. **[2½]**

SECTION A SUBTOTAL: 9½

SECTION B: CARDIOVASCULAR

QUESTION 1

Describe the location of the heart. **[3]**

QUESTION 2

List the layers covering the heart from external to internal. [2]

QUESTION 3

Create a flow diagram listing the arteries that blood flows through from the heart to the thigh. [3]

QUESTION 4

Explain the vascular shunt of the capillary bed. [2½]

SECTION B SUBTOTAL: 10½

SECTION C: RESPIRATORY

QUESTION 1

Explain the difference between the conchae and the choanae. [4]

QUESTION 2

Describe the microscopic anatomy of a typical alveolus. [3]

QUESTION 3

Name the cartilages of the larynx. [3]

SECTION C SUBTOTAL: 10

SECTION D: LYMPHATIC

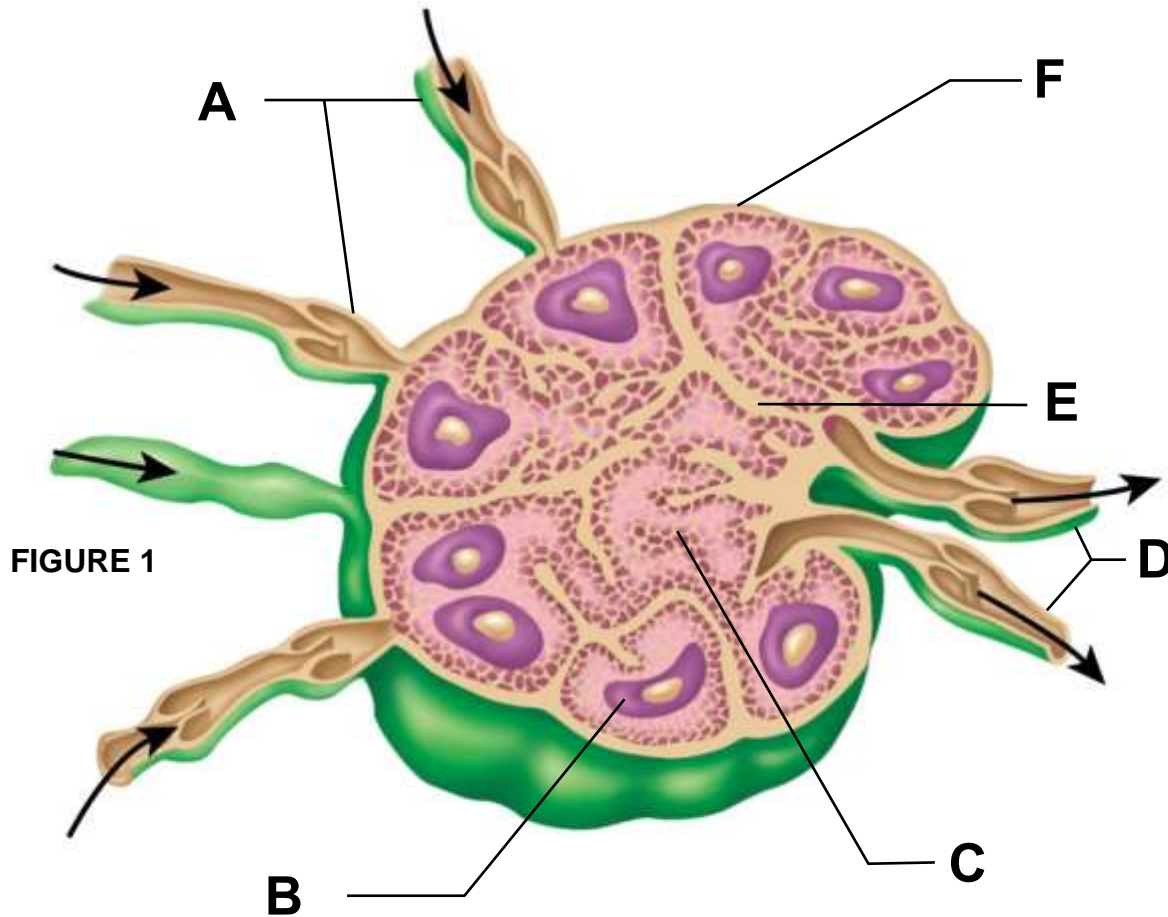
QUESTION 1

Write a short note on the anatomy of lymphatic capillaries. [4]

QUESTION 2

Provide labels for structures A to F in Figure 1.

[3]



QUESTION 3

Explain the difference between diffuse lymphoid tissue and lymphoid follicles. Name an example/location of each.

[3]

SECTION C SUBTOTAL: 10

SECTION E: MULTIPLE CHOICE QUESTIONS

QUESTION 1

The deposits in the pineal gland which are radiopaque are called:

- A. Pineal grit
- B. Pineal sand
- C. Otoliths
- D. Pineal calcium
- E. Pineal stones

QUESTION 2

The portion of the pituitary gland that is functionally part of the nervous system is the:

- A. Median eminence
- B. Hypothalamus
- C. Posterior lobe
- D. Anterior lobe
- E. Pars tuberalis

QUESTION 3

The enteroendocrine cells are located in the:

- A. Gastrointestinal tract
- B. Heart
- C. Skin
- D. Placenta
- E. Kidney

QUESTION 4

Blood flows from the heart to the brain in the following order:

- A. Aorta; brachiocephalic trunk; left common carotid a; left external carotid a
- B. Aorta; brachiocephalic trunk; right common carotid a; right external carotid a
- C. Aorta; brachiocephalic trunk; left common carotid a; left internal carotid a
- D. Aorta; brachiocephalic trunk; right common carotid a; right internal carotid a
- E. Aorta; brachiocephalic trunk; external jugular a; internal jugular a

QUESTION 5

The myocardium is thinner in the atria than the ventricles because:

- A. The atria pumps larger volumes of blood
- B. The ventricles pumps larger volumes of blood
- C. The ventricles exert higher pressure
- D. The atria exert higher pressure
- E. The myocardium in the atria and ventricles are equally thick.

QUESTION 6

The following statement is **FALSE**:

- A. The left primary bronchus is longer than the right
- B. The left primary bronchus is more horizontal than the right
- C. The left primary bronchus is narrower than the right
- D. The left primary bronchus is more vertical than the right
- E. The left primary bronchus branches twice

QUESTION 7

The following are paranasal sinuses **EXCEPT**:

- A. Frontal sinus
- B. Sphenoidal sinus
- C. Maxillary sinus
- D. Superior sagittal sinus
- E. Ethmoidal sinus

QUESTION 8

The tissue framework of the thymus is:

- A. Reticular connective tissue
- B. Elastic connective tissue
- C. Epithelium
- D. Haematopoietic tissue
- E. Bone

QUESTION 9

The lymph from the intestinal trunk drains into the:

- A. Lumbar trunk
- B. Thoracic trunk
- C. Cisterna chyli
- D. Bronchomediastinal trunk
- E. Subclavian trunk

QUESTION 10

An example of a lymphoid follicle found in the nasopharynx is:

- A. Appendix
- B. Pharyngeal tonsil
- C. Palatine tonsil
- D. Peyer's patches
- E. Intestinal crypts

SECTION E SUBTOTAL: 10

TOTAL MARKS: 50
