



**THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF BASIC SCIENCES
ACADEMIC YEAR 2020/2021 – SEMESTER I**

**BACHELOR OF SCIENCE HONOURS IN PHARMACY
BACHELOR OF SCIENCE HONOURS IN MEDICAL LABORATORY
SCIENCES
BSU3230 - HUMAN ANATOMY - LEVEL 3
CONTINUOUS ASSESSMENT I (NBT I) DURATION: 1 HOUR**

DATE: 19th NOVEMBER 2021

TIME: 09.00 AM – 10.00 AM

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of **11 pages** with **20 Multiple Choice Questions (Part A)** and **02 Structured Essay Questions (Part B)**.
- Write your Registration Number in the space provided.
- Answer **ALL** questions.
- **Multiple Choice Questions (Part A):** Indicate answers in the answer sheet provided by placing a cross (X) in **INK** in the relevant cage. (Answers in pencil will **NOT** be marked)
- **Structured Essay Questions (Part B):** Write answers within the space provided.
- Do not remove any page/part of this question paper from the examination hall.
- Mobile phones and any other electronic equipment are **NOT** allowed. Leave them outside.
- **Please fill the address sheet. (See last page)**

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BACHELOR OF SCIENCE HONOURS IN MEDICAL LABORATORY SCIENCES
BSU3230 - HUMAN ANATOMY - LEVEL 3
CONTINUOUS ASSESSMENT I (NBT I)

REGISTRATION NO:.....

ANSWER SHEET FOR PART A

Q. No.	(a)	(b)	(c)	(d)
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REGISTRATION NO:

Part A – Multiple Choice Questions*(20 marks)*

Choose the most suitable/ best answer and indicate with a 'X' in the answer sheet provided.

- 1) Oxygen, carbon dioxide, alcohol and steroids are transported via
 - a) glycoproteins
 - b) phospholipids
 - c) carbohydrates
 - d) cholesterol

- 2) Many of the cholesterol molecules are found
 - a) on the carbohydrate molecules
 - b) in between the fatty acid tails
 - c) in between the globular proteins
 - d) on the phospholipid bilayer

- 3) Epithelial tissue is the tissue which
 - a) allows the movement to take place
 - b) surrounds the organs of the body providing support and protection
 - c) covers the surface of the body and line the ducts, body cavities and glands
 - d) controls and coordinates the activities of the body

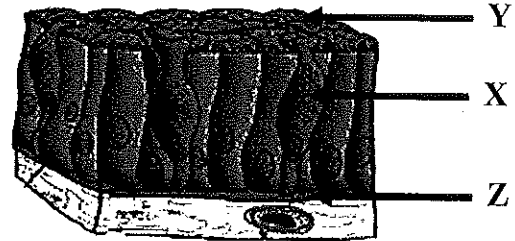
- 4) Stratified squamous epithelium is found in the
 - a) alveolar sac
 - b) blood capillaries
 - c) tubules of the kidneys
 - d) epidermis of the skin

- 5) The epithelium lining the fallopian tube of the female reproductive system is
 - a) simple squamous epithelium
 - b) ciliated columnar epithelium
 - c) stratified squamous epithelium
 - d) simple cuboidal epithelium

Answer the questions from 6 – 8 using the following diagram.

- 6) The function of the cell marked by the arrow (X) in the picture is
- mucus secretion
 - supportive function
 - absorption
 - enzyme secretion

- 7) Identify the structure marked by the arrow (Y) in the picture.
- Mucus
 - Cilia
 - Microvilli
 - Connective tissue



- 8) Identify the structure marked by the arrow (Z) in the picture.
- Connective tissue
 - Basement membrane
 - Hyaline cartilage
 - Collagen fibres

9) Which one of the following statement/s is/are correct with regard to important factors involved in the skeletal muscle contraction?

- The interaction between actin and myosin myofilaments
 - Shortening of sarcomeres
 - Contained receptors for the neurotransmitter acetylcholine (ACh) in sarcolemma
- A only
 - B only
 - A, B only
 - A, B, and C

10) Which one of the following is required for its functional syncytium of cardiac muscles?

- Branched muscle fibres
- Intercalated discs
- Gap junctions
- Several nuclei (multinucleated)

- 11) Which one of the following statements is correct regarding erythrocytes?
- They have lobed nuclei
 - They are biconvex in shape
 - Their production is regulated by a hormone
 - Their life span is about 2 days
- 12) The site of haematopoiesis is
- spleen
 - liver
 - bone marrow
 - heart
- 13) The double walled sac enclosed the heart is called as the
- perimysium
 - pericardium
 - endocardium
 - epimysium
- 14) Select the correct order of flow of deoxygenated blood through the heart
- inferior vena cava → right atrium → right ventricle → pulmonary trunk
→ pulmonary arteries → lungs
 - superior vena cava → left ventricle → left atrium → pulmonary trunk
→ pulmonary arteries → lungs
 - superior vena cava → right atrium → right ventricle → pulmonary arteries
→ pulmonary trunk → lungs
 - inferior vena cava → left atrium → left ventricle → pulmonary trunk
→ pulmonary arteries → lungs
- 15) The tricuspid valve is located
- at the base of the pulmonary trunk
 - in between right atrium and right ventricle
 - in between left atrium and left ventricle
 - at the aorta

16) The blood supply to the cardiac muscle tissue is via

- a) the aorta
- b) coronary artery
- c) pulmonary artery
- d) inferior vena cava

17) Which statement is **incorrect** regarding the lymphatic system?

- a) Lymphatic capillaries have thin walls consisting of a layer of simple squamous epithelium
- b) Lymphatic vessels have valves located at intervals along their length
- c) Lymphatic system consists of lymphatic capillaries, lymphatic vessels, lymph nodes and lymphoid organs
- d) Lymphatic capillaries are continuous type vessels

18) Which one of the following statements is correct regarding pancreas?

- a) Exocrine portion release insulin and glucagon into the blood
- b) Endocrine portions produce and secrete pancreatic juice
- c) Exocrine portions of the pancreas consist of secretory cells, called acini
- d) The ducts eventually open into the ileum of the small intestine

19) Bile does not contain

- a) ammonia
- b) bile salts
- c) cholesterol
- d) bilirubin

20) The hormone cholecystokinin (CCK)

- a) is released into the blood from cells in the stomach
- b) regulates the activity of the pancreas and the gall bladder
- c) stimulates the smooth muscle in the wall of the duodenum
- d) helps to release bile into the lacteals

REGISTRATION NO:

Part B – Structured Essay Questions

(80 marks)

Write answers in the space provided.

- 1) a) List the tissue layers of the gastrointestinal tract. (4 marks)

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- b) Give the location and the functions of the followings: thymus gland, spleen, tonsils. (12 marks)

Thymus gland:.....
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Spleen:.....
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Tonsils:.....
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c) Draw labeled diagram of the microscopic structure of the wall of the small intestine. (12 marks)

d) Briefly explain the fluid mosaic model of the cell membrane with a diagram. (12 marks)

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2) a) Outline the structural and functional changes along the airway tract in the human respiratory tract. (12 marks)

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b) Outline the structure of the lungs and pleurae. (8 marks)

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- c) List **five (05)** types of epithelial tissues found in the human body. Give one example for each type that you mentioned. (10 marks)

Type	Example
I.	
II.	
III.	
IV.	
V.	

- d) Name **three (03)** types of muscle tissues and compare them. (10 Marks)

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