

**THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF BASIC SCIENCES
ACADEMIC YEAR 2020/2021 – SEMESTER 01
BACHELOR OF PHARMACY HONOURS
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOUR**



**BSU3230 – HUMANANATOMY – LEVEL 03
FINAL EXAMINATION
DURATION: TWO HOURS**

DATE: 10.03.2022

TIME: 1.30- 3.30 pm

INDEX NO:

IMPORTANT INSTRUCTIONS / INFORMATION TO CANDIDATES

- This question paper consists of 10 pages with 03 Parts / Sections:
 - **Part A / Section 1: Multiple Choice Questions - MCQs (20 marks):** There are 20 MCQs. Indicate answers for **all** questions in the answer sheet provided by placing a cross (x) in ink in the relevant cage (answers in pencil will not be marked).
 - **Part B / Section 2: 02 Structured Essay Questions - SEQs (40 marks):** There are 02 SAQs. Write answers for **all** questions within the space provided in the question paper.
 - **Part C / Section 3: Essay Questions (40 marks):** There are 02 essay questions. Write answers for **only two** questions in the answer books provided.
- Answer **ALL** questions.
- Write your **Index Number** in the space provided.
- Do **NOT** bring in on person or have in possession unauthorized materials, including mobile phones and other electronic devices, or violate any other examination rules.
- Do **NOT** remove any page/part of this question paper from the examination hall.

BACHELOR OF PHARMACY HONOURS
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
BSU3230 - HUMAN ANATOMY – LEVEL 3
FINAL EXAMINATION 2020/2021

INDEX NO:.....

ANSWER SHEET FOR PART A

Q. No.	(a)	(b)	(c)	(d)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

INDEX 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. Which one of the following is **not** a true endocrine organ?
 - a. Thyroid gland
 - b. Anterior pituitary
 - c. Posterior pituitary
 - d. Adrenal gland

2. The epithelium that lines the urinary bladder
 - a. pseudostratified columnar epithelium
 - b. transitional epithelium
 - c. simple columnar epithelium
 - d. simple cuboidal epithelium

3. Which one of the following **is not** a rotator cuff muscles in the shoulder joint?
 - a. Supraspinatus
 - b. Infraspinatus
 - c. Teres minor
 - d. Deltoid

4. An example for a muscle in the abdominal wall
 - a. internal intercostal
 - b. pectoralis major
 - c. rectus abdominis
 - d. deltoid

5. The shaft of a long bone is known as
 - a. periosteum
 - b. diaphysis
 - c. epiphysis
 - d. central cavity

6. The thin filaments in the skeletal muscle sarcomeres are made up of
 - a. myosin
 - b. actin
 - c. collagen
 - d. keratin

7. The main function of red bone marrow
 - a. produce the components of blood
 - b. store fat
 - c. replace the bone
 - d. renew the bone

8. Select the **false** statement regarding the cerebrospinal fluid (CSF).
 - a. It is produced in the spinal cord
 - b. It is a clear and colourless body fluid
 - c. It is constantly being formed and later reabsorbed back into the blood
 - d. It serves as a nutrient delivery and waste removal system for the brain

9. Photoreceptors are **absent** in the
 - a. retina
 - b. blind spot
 - c. fovea centralis
 - d. iris

10. An effect of the parasympathetic nervous system
 - a. constriction of pupil
 - b. increase of heart rate
 - c. reduction of blood flow to intestines
 - d. increase of air supply to lungs

11. 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

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

13. Which one of the following is required for cardiac muscle to function as a syncytium?
 - a. Branched muscle fibres
 - b. Intercalated discs
 - c. Gap junctions
 - d. Having several nuclei (multinucleated)

14. 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 12 days
15. The main site of haematopoiesis in an adult
- spleen
 - liver
 - bone marrow
 - heart
16. Select the **correct order** of flow of deoxygenated blood through the heart to lungs
- 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
17. 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
18. Which one of the following statements is **correct** regarding pancreas?
- Exocrine portion releases insulin and glucagon into the blood
 - Endocrine portions produce and secrete pancreatic juice
 - Exocrine portions of the pancreas consist of secretory cells, called acini
 - 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 function of the goblet cell in the intestine

- a. Secretion of mucus
- b. Providing supportive function
- c. Absorption of nutrients
- d. Secretion of digestive enzymes

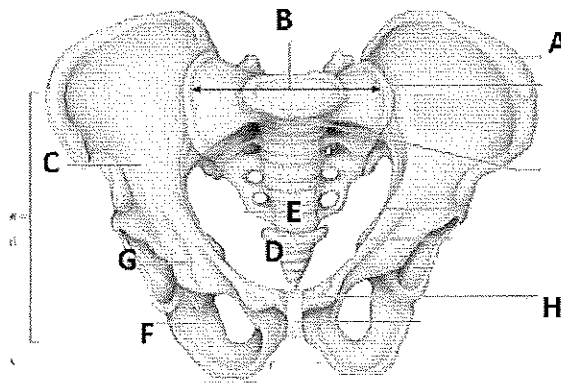
INDEX NO:

PART B – STRUCTURED ESSAY QUESTIONS

(40 marks)

Write answers in the space provided.

1. A) The following diagram shows the bones of the pelvic region. Identify the bones/ area of the bone A to F. (8 marks)



A	
B	
C	
D	
E	
F	
G	
H	

- B) Identify the type of epithelium found in the following regions of the body. (2 marks)

I. Epidermis of the skin	
II. Respiratory tract	
III. Blood capillaries	
IV. Small intestine	

C) List the **one (01)** major function of followings. (10 marks)

	Functions
Testis	
Seminiferous tubules	
Leydig cells	
Epididymis	
Seminal vesicles	
Penis	
Fallopian tubes	
Vagina	
Mammary glands	
Ovaries	

2. A) Briefly describe the structural organization of the human body. (4 marks)

.....

.....

.....

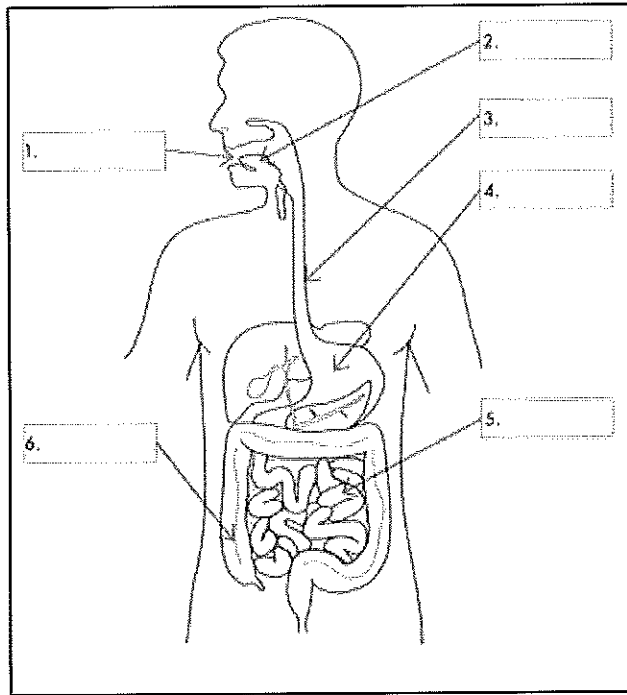
.....

.....

.....

.....

B) The following diagram shows the structure of digestive system. Identify the **structures** 1 – 6 and give one function for each. (12 marks)



	Structure	Function
1		
2		
3		
4		
5		
6		

C) Name **two (2)** somatic sensations and **two (2)** special senses. (4 marks)

.....

.....

.....

.....

.....

INDEX NO:

PART C – ESSAY QUESTIONS

(40 marks)

Write answers to all the questions.

1. A) Identify the main types of muscle tissues in the human body **and** describe the structural and functional properties of the muscle tissue found in the walls of hollow organs (10 marks)
B) Briefly describe the structure of a typical neurone (10 marks)

2. A) Outline the structure of the wall of an artery (10 marks)
B) Briefly explain the **fluid mosaic model** of the cell membrane (10 marks)