

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



BACHELOR OF PHARMACY HONOURS  
BSU3431 - HUMAN PHYSIOLOGY – LEVEL 3  
CONTINUOUS ASSESSMENT II (NBT II)

DURATION: ONE HOUR

DATE: 07<sup>th</sup> JANUARY 2022

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 the last page).**

**BACHELOR OF PHARMACY HONOURS**  
**BSU3431 - HUMAN PHYSIOLOGY – LEVEL 3**  
**CONTINUOUS ASSESSMENT II (NBT II)**

REGISTRATION NO: .....

**ANSWER SHEET FOR PART A**

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

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**Part A – Multiple Choice Questions***(40 marks)*

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

1. The substance which is **not** filtered through the walls of the glomerular capillaries and Bowman's capsule
  - a. Water
  - b. Salts
  - c. Proteins
  - d. Glucose
  
2. The substance which is completely reabsorbed during the process of tubular reabsorption
  - a. Water
  - b. Salts
  - c. Proteins
  - d. Glucose
  
3. Which one of the following statements is **correct** regarding the formation of urine?
  - a. Glomerular filtration is a selective process
  - b. Tubular secretion occurs mainly in the proximal convoluted tubule
  - c. The descending limb of loop of Henle is impermeable to water
  - d. Tubular reabsorption is a non selective process
  
4. Which one of the following statements is **incorrect** regarding hormones?
  - a. Hormones must bind to specific receptors to produce their specific effects
  - b. They are chemical messengers
  - c. Hormones are released via ducts and are transported throughout the body
  - d. They act in a site away from the point of secretion
  
5. The hypothalamus influences the secretions of the anterior pituitary gland by
  - a. communicating indirectly with arterial blood from a capillary network in the hypothalamus
  - b. releasing and inhibiting hormones secreted by the hypothalamo-hypophyseal tract
  - c. communicating with nerve cells downwards from the hypothalamic nuclei
  - d. transporting the hormones along the axons and storing in vesicles within the axon terminals to be released

6. Thyroid-stimulating Hormone (TSH) is secreted by
  - a. posterior pituitary
  - b. anterior pituitary
  - c. thyroid gland
  - d. hypothalamus
  
7. A disorder of the secretion of the growth hormone (GH) is
  - a. myxedema
  - b. osteoporosis
  - c. cretinism
  - d. dwarfism
  
8. The function of oxytocin hormone is to
  - a. lower blood calcium levels
  - b. contract the uterine muscle during childbirth
  - c. regulate body fluids
  - d. lower blood phosphate levels
  
9. Basal metabolic rate is regulated by
  - a. oxytocin
  - b. thyroxin
  - c. progesterone
  - d. parathyroid hormone
  
10. Which one of the following hormones **does not involve** in regulating the blood calcium level?
  - a. Calcitonin
  - b. ADH
  - c. Thyroxine
  - d. Oestrogen
  
11. The function of the seminiferous tubule is the
  - a. protection of spermatozoa
  - b. maturation of sperms
  - c. storage of sperms
  - d. production of spermatozoa
  
12. The hormone which controls the production of sperm is
  - a. FSH
  - b. LH
  - c. Testosterone
  - d. TSH

13. Which one of the following is **correct** regarding the ovarian cycle?
- High blood level of progesterone causes the ovulation
  - Developing follicles produce follicle stimulating hormone
  - Corpus luteum secretes luteinizing hormone
  - Follicular stimulating hormone stimulates follicular development
14. The ovulation takes place
- on the 14<sup>th</sup> day of the menstrual cycle
  - between 1-14 days of menstrual cycle
  - between 14 – 28 days of menstrual cycle
  - on the 28<sup>th</sup> day of menstrual cycle
15. Which one of the following is **not** a main characteristic of effects of aging on respiratory system?
- Reduction in respiratory muscle mass and power
  - Changes in pulmonary compliance
  - Reduction in diffusion capacity
  - Decreased compliance of the capacitance system
16. The condition with increased intracranial pressure of a patient with head injury due to an accident is called as
- Cushin's reflex
  - Cushing's syndrome
  - Conn's syndrome
  - Somatic reflex
17. The superior oblique muscle of the eye is supplied by
- trochlear Nerve
  - oculomotor nerve
  - trigeminal nerve
  - abducent Nerve
18. Select the **correct** statement regarding the common defects of the image forming mechanism of the eye
- In hyperopia, parallel light rays diverge slightly before they strike the eye
  - The hyperopia can be corrected by using glasses with biconcave lenses
  - In Myopia, the light rays focus behind the retina
  - Presbyopia is due to the hardening of the lens in old age

19. The bitemporal hemianopia occurs due to the lesion at
- right optic nerve
  - optic chiasm
  - right optic tract
  - right visual cortex

20. What is the test of vision identified by the chart shown below?
- Near vision
  - Visual acuity
  - Colour vision
  - Field of vision



REGISTRATION NO: .....

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**Part B – Structured Essay Questions**

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*(60 marks)*

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Write answers in the space provided.

- 1) a) List
- four (04)**
- functions of the male sex hormone testosterone. (4 marks)

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- b) List
- three (03)**
- hormones secreted by the anterior pituitary and mention their functions. (6 marks)

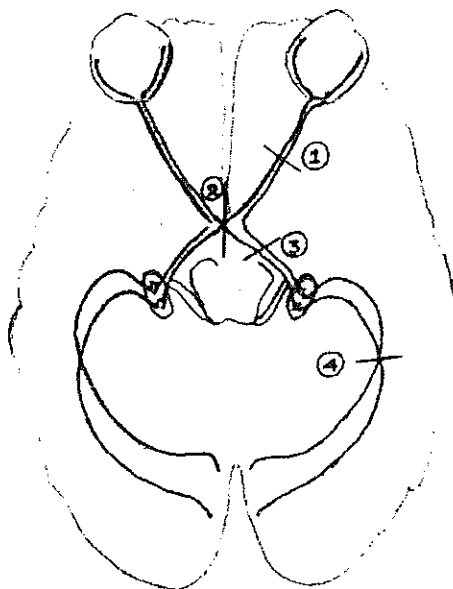
	Hormone	Function
1.		
2.		
3.		

- c) Draw and label a diagram of the arterial flow of cerebral circulation "
- Circle of Willis**
- ". (10 marks)

d) Write **one (01)** function for each of the below mentioned cranial nerves? (10 marks)

Cranial nerve	Function
Optic nerve (II)	
Trigeminal nerve (V)	
Facial Nerve (VII)	
Vagus nerve (X)	
Hypoglossal nerve (XII)	

2. a) Write the correct visual defect relevant to the lesion of the visual pathway marked by 1 – 4. (8 marks)





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b) Name two (02) disorders of growth hormone secretion. (4 marks)

- I. ....
- II. ....

c) Describe the physiological actions of ADH hormone. (8 marks)

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