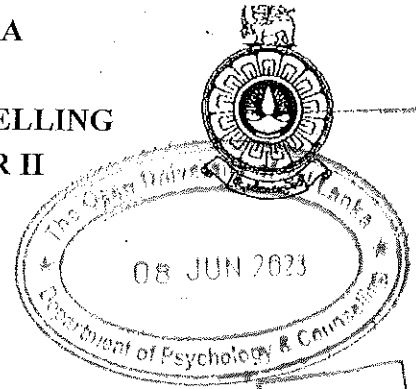


00096

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PSYCHOLOGY & COUNSELLING
ACADEMIC YEAR 2022/2023- SEMSETER II

BSC HONS IN PSYCHOLOGY
PLU3310 – BIOLOGICAL PSYCHOLOGY - LEVEL 3
CONTINUOUS ASSESSMENT TEST – NBT I
DURATION: 1 ½ HOURS



DATE: 08.06.2023

TIME: 9.00-10.30 am

INDEX NO:

IMPORTANT INSTRUCTIONS/ INFORMATION TO CANDIDATES

- This question paper consists of 09 pages with TWO sections.

Section 1: 20 Multiple Choice Questions - (40 Marks)

Section 2: 12 Short Answer Questions - (60 Marks)

- Write your INDEX NO in the space provided.
- **Multiple Choice Questions (Section 1):** 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)
- **Short Answer Questions (Section 2):** Write the answer within the space provided.
- Do **NOT** remove any page/part of this question paper from the examination hall.
- Do **NOT** keep unauthorized materials, including mobile phones and other electronic equipment, with you during the examination.

SECTION 1: Multiple Choice Questions (20 Questions-40 Marks)

- 1.1 One major macromolecule the human body is made of is carbohydrates. Which one of these carbohydrates is significantly larger than the others?
- a Fructose
 - b Glucose
 - c Maltose
 - d Ribose
- 1.2 Which one of these components belongs to the limbic system?
- a Hippocampus
 - b Visual Cortex
 - c Tegmentum
 - d Amygdala
- 1.3 Which part of the neuron carries out an afferent function?
- a Soma
 - b Dendrite
 - c Axon
 - d Axon Hillock
- 1.4 The human body consists of cranial nerves and spinal nerves. Which one of these nerves controls the heart rate of a person?
- a Hypoglossal Nerve
 - b Vagus Nerve
 - c Pudental Nerve
 - d Facial Nerve
- 1.5 Which of the following areas are responsible for speech production and language comprehension respectively?
- a Broca's area and Wernicke's area
 - b Broca's are and Angular gyrus
 - c Angular gyrus and Broca's area
 - d Wernicke's area and Broca's area
- 1.6 Which one of these statements is false regarding the myelin sheath?
- a Myelin sheath acts as an insulator for electrical signals
 - b Many, but not all axons are covered by myelin
 - c Axon Hillock is completely covered by myelin
 - d Between each myelin segment there is a bare space of axon membrane known as a node of Ranvier

- 1.7 Sex hormones regulate sexual behaviours. Which of these is the sex hormone responsible for initiating sexual activity in both men and women?
- a Oestrogen
 - b Testosterone
 - c Insulin
 - d Progesterone
- 1.8 Which one of these is not a part of the three layers that are involved in the chemical signal transmission?
- a Synaptic Cleft
 - b Presynaptic Terminal
 - c Postsynaptic Terminal
 - d Terminal Bulb
- 1.9 Which of the following methods is useful for investigating sleeping patterns of an individual and sleep-related disorders?
- a CAT
 - b CAT
 - c MRI
 - d SEM
- 1.10 The human eye has receptors for both black/white and colour vision. Which one of these receptors are responsible for colour vision?
- a Cylinders
 - b Pyramids
 - c Rods
 - d Cones
- 1.11 Which one of these is a function of the respiratory system?
- a Release enzymes to the blood supply
 - b Maintain glucose balance
 - c Produce hormones
 - d Protect exchange surfaces from environmental variations and pathogens
- 1.12 The human body consists of endocrine and exocrine glands. Which one of these is an exocrine gland?
- a Hypothalamus gland
 - b Adrenal gland
 - c Lachrymal gland
 - d Pituitary gland

- 1.13 The digestion process is important breakdown food and absorb nutrients. Activation of which nervous system is important for the digestion process?
- a Sympathetic NS activation
 - b Parasympathetic NS activation
 - c Somatic NS activation
 - d Visceral NS activation
- 1.14 Which of the following cells is responsible for secreting the myelin sheath in the brain?
- a Satellite Glial Cells
 - b Oligodendrite
 - c Schwann Cells
 - d Astrocytes
- 1.15 Which of the following neurotransmitters is related to depression?
- a Epinephrine
 - b Glutamate
 - c GABA
 - d Norepinephrine
- 1.16 Which one of the following scientists came up with the stomach contraction theory of hunger?
- a Craig & Lockhart
 - b Descartes & Locke
 - c Watson & Crick
 - d Cannon & Washburn
- 1.17 Audition functions would be carried out which lobe of the brain?
- a Frontal
 - b Occipital
 - c Parietal
 - d Temporal
- 1.18 Which one of the following receptors can sense pain?
- a Chemoreceptor
 - b Nociceptor
 - c Thermoreceptor
 - d Photoreceptor
- 1.19 Which one of following parts of the neuron can be found in grey matter?
- a Cell Body
 - b Axon Hillock
 - c Axon
 - d Terminal bulbs

1.20 If a child is capable of understanding instructions given but has issues talking back to a person, might be a result of damage to a brain region. Which of the following regions of the brain would be responsible for this?

- a Postcentral gyrus
- b Wernicke's area
- c Temporal cortex
- d Broca's area

INDEX NO:

ANSWER SHEET FOR SECTION-1

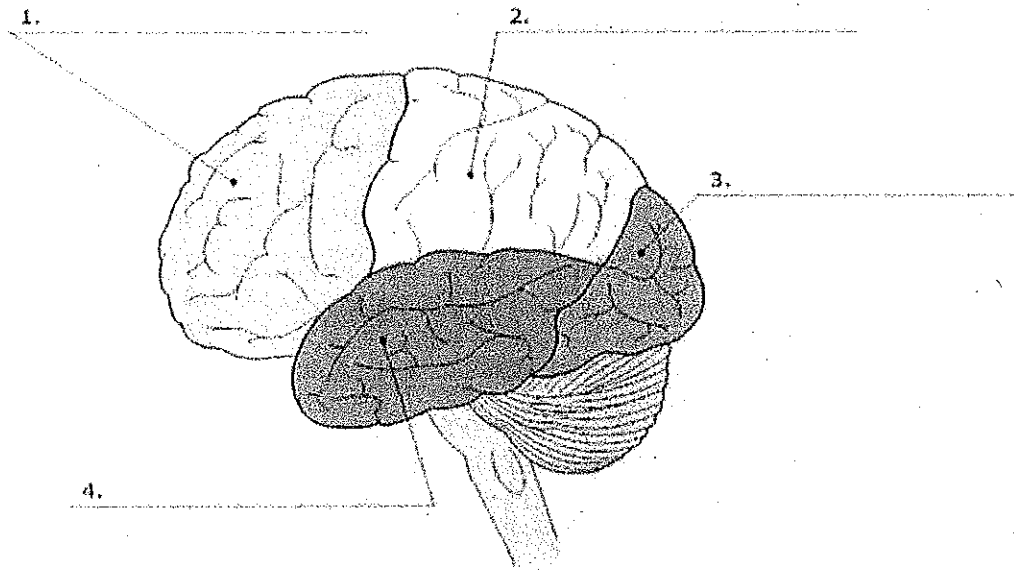
Q. No.	(a)	(b)	(c)	(d)
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
1.10				
1.11				
1.12				
1.13				
1.14				
1.15				
1.16				
1.17				
1.18				
1.19				
1.20				

INDEX NO:

SECTION 2: SHORT ANSWER QUESTIONS (60 MARKS)

All Questions are compulsory.

2.1 Label the following parts of the diagram. (8 marks)



2.2 What is continuous and saltatory conduction? (4 marks)

.....
.....
.....

2.3 Name three (03) equipments that can be used to study the function of the brain? (6 marks)

.....
.....
.....

2.4 Where in the eye are visual sensory receptors located? (2 marks)

.....
.....
.....

2.5 What is diastole and systole?

(4 marks)

.....

.....

.....

2.6 Name the two (02) circuits blood will be circulated in?

(2 marks)

.....

.....

.....

2.7 Name the subdivisions of the three (03) components of the brain and name a region that belongs to each subdivision.

(10 marks)

Division of the layers of the neural tube at three weeks	Subdivisions	One structure formed by each layer
Forebrain		
Midbrain		
Hindbrain		

2.8 What causes astigmatism and presbyopia?

(4 marks)

.....

.....

.....

2.9 Name two (02) excitatory and inhibitory neurotransmitters.

(4 marks)

.....

.....

.....

2.10 Name two (02) hormones that are produced as a response to long term stress. (2 marks)

.....
.....
.....

2.11 What is sensory adaptation? (4 marks)

.....
.....
.....

2.12 What are the five (05) characteristics of a hormone? (10 marks)

.....
.....
.....
.....
.....

-----END OF QUESTION PAPER-----

