

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PSYCHOLOGY AND COUNSELLING
ACADEMIC YEAR 2018/19 – 2ND SEMESTER



BSC (HONS.) IN PSYCHOLOGY
PLU3310 BIOLOGICAL PSYCHOLOGY, LEVEL 3
CONTINUOUS ASSESSMENT TEST - NBT 2
DURATION: 1 HOUR

DATE: 24.08.2019

TIME: 9.00 -10.00 am

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATION TO CANDIDATES

- This question paper consists of **11 pages** with **2 sections**

Section 1: 20 Multiple Choice Questions (40 Marks)

Section 2: 12 Short Answer Questions (60 Marks)

- Write your Registration Number in the space provided.
- Answer **ALL** questions.
- **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 answers within the space provided.
- Do **NOT** remove any page/part of this question paper from the examination hall.
- Do **NOT** keep unauthorized material, including mobile phones and other electronic equipment, with you during the examination.

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SECTION 1: MULTIPLE CHOICE QUESTIONS (20 QUESTIONS – 40 MARKS)

- 1.1 The pacemaker region of the heart is
- a left ventricle.
 - b ventricular conduction fibres.
 - c atrioventricular node.
 - d sinoatrial node.
- 1.2 The heartbeat rate of a healthy person at rest is about
- a 62 beats per minute.
 - b 80 beats per minute.
 - c 72 beats per minute.
 - d 82 beats per minute.
- 1.3 Normal breathing of an individual occurs
- a involuntarily and rhythmically.
 - b involuntarily and irregularly.
 - c voluntarily and rhythmically.
 - d voluntarily and regularly.
- 1.4 The active phase of breathing is
- a expiration.
 - b diffusion of oxygen.
 - c inspiration.
 - d relaxation of diaphragm.
- 1.5 Which of the following areas of the brain regulates body water?
- a Thalamus
 - b Hypothalamus
 - c Cerebellum
 - d Frontal lobe

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- 1.6 What is the period of life during which reproductive organs mature and become functional?
- a Childhood
 - b Late adolescence
 - c Puberty
 - d Young adulthood
- 1.7 The sequence of changes that occurs in the ovaries is called
- a menstrual cycle.
 - b uterine cycle.
 - c fertilization.
 - d ovarian cycle.
- 1.8 The main source of brain input for movement is
- a the primary motor cortex.
 - b hypothalamus.
 - c limbic system.
 - d amygdala.
- 1.9 The largest organ of the human body is
- a liver.
 - b heart.
 - c skin.
 - d stomach.
- 1.10 The systems that are involved in communication and coordination of actions of all parts of the human body are,
- a nervous system and endocrine system.
 - b nervous system and cardiovascular system.
 - c endocrine system and respiratory system.
 - d cardiovascular system and respiratory system.
- 1.11 The hormone which promotes the development of the female breasts and secretion of milk is
- a Glucagon.
 - b Thyroxine.
 - c Calcitonin.
 - d Prolactin.

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- 1.12 The hormone which controls glucose levels in the human body is
- a Oxytocin.
 - b Insulin.
 - c Gastrin.
 - d Epinephrine.
- 1.13 What is the basic secretory unit of the stomach?
- a Intestinal glands
 - b Gastric glands
 - c Pancreatic glands
 - d Sweat glands
- 1.14 Which one of the following systems is involved in protecting humans from infections?
- a Endocrine system
 - b Exocrine system
 - c Immune system
 - d Respiratory system
- 1.15 What is the first line of defense against foreign substances in the body?
- a Innate immunity
 - b Acquired immunity
 - c Humoral immunity
 - d Cell-mediated immunity
- 1.16 The response triggered by damage to living tissues is called
- a inflammation.
 - b phagocytosis.
 - c perspiration.
 - d increase in heart rate.
- 1.17 The cardiovascular system is a network that
- a carries blood throughout the body.
 - b moves air in and out of the body.
 - c transfers messages from the brain to different parts of the body.
 - d breaks down food into smaller particles for use in the human body.

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- 1.18 Which type of blood vessels carry blood away from the heart?
- a Veins
 - b Arteries
 - c Capillaries
 - d Venules
- 1.19 The complete set of genetic information contained within an organism or cell is called
- a genes.
 - b chromosome.
 - c genome.
 - d allele.
- 1.20 Which of the following affects the development regardless of whether the individual has two or one copy per cell?
- a Dominant gene
 - b Allele
 - c Recessive gene
 - d Genotype

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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				

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SECTION 2: SHORT ANSWER QUESTIONS (12 QUESTIONS - 60 MARKS)

WRITE ANSWERS ONLY WITHIN THE SPACE PROVIDED.

2.1 i). Name the period when gases are leaving the lungs. (2 marks)

.....

ii). Name the area in the medulla oblongata that controls the basic rate and the depth of breathing. (2 marks)

.....

2.2 The following table includes structure and function of DNA and RNA. Complete the following table (6 marks).

	DNA	RNA
Function		
Sugar		
Structure		

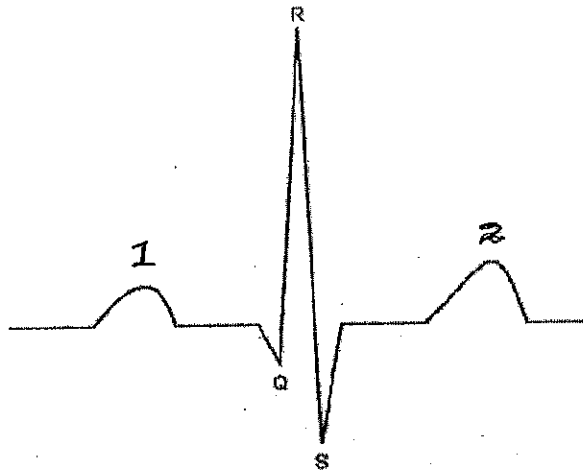
2.3. Name two digestive end products. (4 marks)

i).....

ii).....

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2.4 a). The normal electrocardiogram (ECG) pattern is given below.



i). Identify the waves in 1 and 2. (2 marks)

1

2

ii). Name the specific events that occur in the heart at 1 and 2 mentioned in the above diagram. (4 marks)

1

2

2.5 Human behaviour is a product of the interaction between two factors. (2 marks).

i). influenced by the inheritance and other genetic factors.

ii). explains the influence of external factors.

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2.6 List 2 main functions of the stomach. (4 marks).

- i)
- ii)

2.7 Theories of hunger are given below. Identify and write the correct theory matching with the explanations. (5 marks).

Fatty Acid theory, Heat-Production theory, Glucose theory, Insulin theory, Stomach Contraction theory, Set-point theory

- i). According to (A) individuals feel hungry when their body temperature drops.
- ii). (B) states that individuals know that they are hungry when their stomach contracts.
- iii). According to (C) Individuals feel hungry when blood glucose levels is low.
- iv). (D) explains that individuals' bodies have receptors that detect an increase in the level of fatty acid.
- v). According to (E) individuals feel hungry when there is an increase in insulin level.

2.8 The colour of the skin generally depends on 3 pigments. What are they? (6 marks)

- i).
- ii).
- iii).

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2.9 List 5 functions of the skeletal system. (10 marks)

- i)
- ii)
- iii)
- iv)
- v)

2.10 List 4 main endocrine glands in the human body. (4 marks)

- i).....
- ii).....
- iii).....
- iv).....

2.11 Cell replication is responsible for 3 key events that are important to continue the life on earth.
List them. (3 marks).

- i).....
- ii)
- iii)

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2.12 Endocrine glands secrete hormones that regulate the activities of organs. Identify and write the correct answer matching with the statements. (6 marks).

Oestrogen, Progesterone, Testosterone, Luteinizing hormone, Follicle-stimulating hormone, Thyroxine

i) The hormone which is responsible for maintaining male reproduction

(A)

ii) The hormone which prepares the uterus for a fertilized egg to implant.

(B)

iii) The hormone which causes the release of the egg from the ovary.

(C)

iv) (D) and (E) trigger an
increase in the production of (F)

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