INTI International College Penang

FINAL
Alternative Assessment

Session	:	**April 2021**
Programme	:	Foundation in Science (CFSI)
Course	:	**BIO1204: Biology 2**
Date of Examination	:	30 July 2021 (Friday)
Time	:	9:00am – 11:30am Reading Time : Nil
Duration	:	2 hours + 30 minutes (uploading time)
Special Instructions	:	

This paper consists of **FOUR (4)** questions. Answer **ALL** questions.

All questions carry equal marks.

Materials permitted :

Non-Programmable Scientific Calculator

Materials provided :

Nil

Examiner(s)	:	**Ms. Ooi Saik Huey**
Chief Moderator	:	Dr. Ramani Poospooragi

*This paper consists of **4** printed pages, including the cover page.*

FOUNDATION IN SCIENCE (CFSI)
BIO1204: BIOLOGY 2
FINAL ALTERNATIVE ASSESSMENT: APRIL 2021 SESSION

Instructions: This paper consists of **FOUR (4)** questions. Answer **ALL** questions. All questions carry equal marks.

Question 1

(a) Name **SIX (6)** of connective tissues and state their functions.

(6 marks)

(b) Describe the functional components of saliva.

(4 marks)

(c) State **ONE (1)** function of the each secretion of the stomach.

(4 marks)

(d) Describe the pathway of blood through the mammalian cardiovascular system.

(4 marks)

(e) Explain why fluid leaves capillaries and how fluid returns to the circulatory system.

(4 marks)

(f) Describe the nature of innate defenses in invertebrates and vertebrates.

(3 marks)

Question 2

(a) Discuss how cytotoxic T cells destroy infected body cells.

(5 marks)

(b) Describe the process by which the human excretory system produces filtrate and converts filtrate into urine.

(4 marks)

(c) Explain **THREE (3)** ways that animals eliminate nitrogenous wastes and the advantages and disadvantages of each method.

(3 marks)

(d) Distinguish between the **TWO (2)** major classes of vertebrate hormones and compare the two general mechanisms by which hormones trigger changes in target cells.

(4 marks)

(e) State **ONE (1)** symptom for hypothyroidism, hyperthyroidism, and goiter.

(3 marks)

(f) Describe the functions of the hormones during menstrual cycle.

(6 marks)

Question 3

(a) Discuss how an action potential is generated and how conduction of an action potential occurs.

(7 marks)

(b) State **FOUR (4)** differences structure of monocots and eudicots.

(4 marks)

(c) Explain how a seed forms.

(3 marks)

(d) Describe the pressure flow of sugar along the phloem.

(4 marks)

(e) Explain how transpiration, cohesion and tension each contribute to the movement of xylem sap through a plant.

(3 marks)

(f) Name the **THREE (3)** types of tropism occur in the plant and state **ONE (1)** importance of each tropism to the plant.

(4 marks)

Question 4

(a) State **ONE (1)** function of each hormone: Auxin, cytokinins and Abscisic acid.

(3 marks)

(b) Define population density and describe different **THREE (3)** types of dispersion patterns.

(4 marks)

(c) Describe **THREE (3)** factors that regulate growth in natural populations.

(3 marks)

(d) Define interspecific competition, mutualism, predation, herbivory, and parasitism.

(5 marks)

(e) Explain how carbon cycle within ecosystems.

(3 marks)

(f) Describe the **THREE (3)** components of biodiversity.

(3 marks)

(g) Discuss the **FOUR (4)** greatest current threats to biodiversity and providing examples of each.

(4 marks)

~ The End ~