



NALANDA COLLEGE COLOMBO 10
(G.C.E. (A/L) EXAMINATION – 2026
FINAL TERM TEST – 2026 JUNE

BIOLOGY I
GRADE -13

09 E II

TIME – 02 HOURS

Name : Class:..... Index No:

Instructions :

Answer all questions.

In each of the questions 1-50, pick one of the alternatives from (1), (2), (3), (4) (5) which is correct or most appropriate and mark your response on the answer sheet with a cross (X) on the number of the correct option.

(01) Which of the following statements is correct?

- (1) Growth and development are two consequent processes unique to living things.
- (2) All the living organisms show characteristic features simultaneously.
- (3) The salt glands of mangrove plants support survival and reproduction in arid environments.
- (4) Evolution occurs through the transmission of genes contained in DNA from generation to generation.
- (5) The genetic material of all organisms that exhibit a metabolism contains two polynucleotide chains.

(02) The number of nitrogenous bases contained in a DNA molecule extracted from a mitochondrion was 40,000, of which adenine and there were 18000 adenine bases. Select the false statement about the DNA molecule.

- 1) Has a double helical structure.
- (2) The number of Purin bases are exceeds the number of pirimidines.
- (3) Contains 39998 phosphodiester bonds.
- (4) The number of hydrogen bonds contained in the DNA molecule is 42,000.
- (5) There are only one Ori sites.

(03) Select the answer which contains only polymers that perform a structural function ,

- (1) Phospholipids, cellulose, collagen, chitin
- (2) Collagen, hemicellulose, Inuline, keratin
- (3) Chitin, keratin, suberin, hemicellulose
- (4) Pectin, hemicellulose, chitin, collagen
- (5) Keratin, cellulose, sporopollenin, cutin

(04) A function to which all the components contained in the cytoskeleton contribute is,

- (1) Chromosome movement (4) Formation of cleavage furrow
- (2) Muscle contraction (5) Providing support to the nucleus by forming the nuclear laminar.
- (3) Maintaining the shape of cells

(05) The acceptable statement regarding the meiosis is,

- (1) It contributes to the production of gametes with new genetic combinations in plants.
- (2) Contributes to maintaining a constant number of chromosomes from generation to generation in cyanobacteria.
- (3) In metaphase II, the independent assortment of the chromosomes occurs.

- (4) In telophase I, sister chromatids of homologous chromosomes separate.
- (5) Spermatids produced by the meiosis of primary spermatocytes.

(06) Which of the following is incorrect regarding photosynthetic pigments?

- (1) Carotenoids contribute to the absorption of red light.
- (2) Chlorophyll a and b reflect green light.
- (3) Chlorophyll a is the most important photosynthetic pigment found in the thylakoid membranes of all green plants.
- (4) Photoprotection protects chlorophyll molecules from excessive light.
- (5) Both *Gelidium* and *Ulva* contain chlorophyll a.

(07) Select the correct statement regarding enzymes,

- (1) They are inorganic macromolecules synthesized in living cells.
- (2) Competitive inhibitors can be inactivated by increasing substrate concentration.
- (3) Drugs used against microorganisms bind to enzymes through covalent bonds.
- (4) Enzyme cofactors are loosely and temporarily bound to the enzyme, as well as very tightly and permanently bound.
- (5) At temperatures above the optimum temperature, the enzymes of hot spring inhabitants are not denatured.

(08) Given below are some statements regarding a glucose molecule, which is undergone cellular respiration in *Clostridium*.

- (a) 28 ATP molecules are produced in the electron transport chain.
- (b) The final hydrogen acceptors are organic compounds.
- (c) Substrate phosphorylation produces 4 net ATP molecules.
- (d) 2.5 ATP molecules are normally produced for each NADH molecule.

Which of the above is true,

- (1) a, c and d only (3) c and d only (5) b only
- (2) a, b and c only (4) and only

(09) Which of the following is common for both the genera *Azolla* and *Anabaena* ,

- (1) Ability to fix atmospheric nitrogen.
- (2) Ability to fix carbon and release oxygen.
- (3) Asexual reproduction by fragmentation.
- (4) Protein synthesis begins with formyl methionine.
- (5) The presence of cellulose as a component of the cell wall.

(10) Select the common characteristic for *Euglena*, *Paramecium* and *Amoeba* ,

- (1) Cytoskeleton, hold fast , Genes with introns
- (2) AUG start codon , Many forms of RNA polymerases , sexual reproduction
- (3) Cell wall, 9+2 structures, contractile vacuoles
- (4) 80S ribosomes , Pellicle , contractile vacuole.
- (5) Genes with introns, AUG start codon ,microtubules

(11) Some of the characteristics that can be seen in plant phyla are shown below.

P – Flagellated sperms

Q- Sieve cells in the phloem tissue

R - Heterozygosity

S – Dioicous gametophytes

T-Archegonia present in the ovary

The characteristics of *Cycas* and *Selaginella*, as well as *Nephrolepis*, are:

- (1) P, Q and S (3) P and Q (5) P only
- (2) Q, S and T (4) P and T

(12) Select the Fungi which bears exogenous asexual spores, coenocytic fungal filaments, zoospores and endogenous sexual spores in the order,

- (1) *Penicillium*, *Mucor*, *Saccharomyces*, *Agaricus*
- (2) *Aspergillus*, *Rhizopus*, *Chytridium*, *Penicillium*
- (3) *Agaricus*, *Chytridium*, *Rhizopus*, *Penicillium*
- (4) *Mucor*, *Rhizopus*, *Chytridium*, *Aspergillus*
- (5) *Chytridium*, *Aspergillus*, *Mucor*, *Penicillium*

(13) The characteristic that *Planaria* does not have is,

- (1) Cilia as mobile devices
- (2) Flame cells
- (3) lateral nerve cord
- (4) Larval stages in development
- (5) Internal fertilization

(14) Which of the following can be seen in both the phylum Mollusca and Arthropoda

- (1) Species with endoskeletons
- (2) Ventral nerve cord and segmented ganglia
- (3) Species that excrete uric acid
- (4) Nephridia
- (5) Book lungs

(15) The element that act as cofactors in the synthesis of chlorophyll is,

- (1) Fe (2) Zn (3) B (4) N (5) Mg

(16) Which of the following is false about the phloem translocation?

- (1) The tubers and bulbs act as sources or sinks of sugar depending on their function.
- (2) In sugar sinks, the loading of sugar occurs passively by diffusion.
- (3) In some plants, sugar enters in to the vessels passively through the symplast.
- (4) Sugar is transported passively by bulk flow under positive pressure.
- (5) Even in two adjacent sieve tubes, the direction of sugar transport may be opposite.

(17) The component not found in human saliva is,

- (1) Lysozyme.
- (2) Buffer
- (3) Amylose
- (4) Immunoglobulins
- (5) Mucin

(18) The true statement regarding food digestion is,

- (1) Neural regulation occurs mainly in the small intestine.
- (2) The process of churning is triggered by hormones.
- (3) Cholecystokinin stimulates bile secretion to neutralize chyme.
- (4) The release of gastric juice from the gastric glands is mediated by nerve reflexes.
- (5) Increased fat content in chyme inhibits secretin secretion.

(19) which of the following is correct regarding the human heart?

- (1) The endocardium of the heart wall contains a network of specialized conductive fibers.
- (2) Blood pressure in the pulmonary artery and aorta is almost the same.
- (3) A portion of the venous blood flowing from the heart flows into the heart chambers through small venous channels.
- (4) The pericardium, which is contained within the heart wall, is a smooth membrane.
- (5) The coronary arteries arise immediately proximally to the semilunar valves of the aorta.

(20) Which of the following is a characteristic of fish?

- (1) Mixing of oxygen-poor and oxygen-rich blood in the atria and ventricles.
- (2) The presence of myoglobin as a respiratory pigment.
- (3) Double circulation and heart valves.
- (4) Some species excrete uric acid.
- (5) External gills.

(21) Which of the following is false about the homeostatic regulation of inhalation and exhalation?

- (1) A feedback regulatory mechanism is helpful for the regulatory process.
- (2) It is controlled by an involuntary mechanism.
- (3) The main regulatory center is located at the base of the brain, at the medulla oblongata.
- (4) Respiratory control depends on the pH change in tissue fluid but is not influenced by blood.
- (5) Additional neural circuits play an important role in the proper regulation of respiration.

(22) Which of the following is not a conventional risk factor for chronic kidney disease of unknown etiology?

- (1) Diabetes
- (2) Urinary tract problems.
- (3) Genetic disorders.
- (4) Pesticides.
- (5) High blood pressure.

(23) Consider the following points regarding the conduction of action potential.

- a) An action potential is generated by the influx of Na⁺ ions from one point in the axon.
- b) Glial cells are important in increasing the speed of the action potential.
- c) Action potential conduction may be repetitive.

Among these factors, which of the following is acceptable:

- (1) a and b only
- (2) b and c only
- (3) a and c only
- (4) a, b and c
- (5) only c

(24) Select the following which is false about the human brain

- (1) There are four ventricles of the brain and, three of which are located in the forebrain.
- (2) Cerebrospinal fluid is located in the ventricles.
- (3) The midbrain contributes to the formation of part of the brain stem.
- (4) The brain is protected by the meninges, cerebrospinal fluid, and bones.
- (5) The hind brain formed Cerebellum, pons and medulla oblongata.

(25) Which of the following is false about the hypothalamus, which is part of the human endocrine system?

- (1) Nine hormones are produced and 7 hormones act on the anterior pituitary.
- (2) Of the hormones secreted by the brain, five are secretory hormones and two are secretory inhibitory hormones.
- (3) Although the hormones oxytocin and ADH are produced by this gland, they are not secreted but stored in the posterior pituitary.
- (4) A gland located immediately above the thalamus in the base of the forebrain.
- (5) Growth hormone releasing hormone is secreted by this.

(26) The accessory glands associated with the male reproductive system are given below. Which of the following is/are true about it?

- a) Seminal vesicles
- b) Prostate glands
- c) Balbourethral glands

Produces a thick, yellow alkaline liquid
Produces a milky fluid. Makes up 50% of semen.
Secretes clear alkaline mucus. Neutralizes acidic urine.

- (1) a and b only
- (2) b and c only
- (3) a and c only
- (4) a,b and c
- (5) b only

(27) Which of the following is false regarding breast milk and breastfeeding?

- (1) Breast milk is a sterilized solution.
- (2) Colostrum contains fewer nutrients compared to breast milk.
- (3) The fat, protein and iron present in it metabolizes rapidly.
- (4) The allergies is minimal in breast milk.
- (5) Breast milk contains the same amount of antibodies that are important for immunity as colostrum.

(28) Which of the following is not a common function of the human vertebral column?

- (1) Providing flexibility in body movements.
- (2) Protecting the spinal cord.
- (3) The vertebral canal provides space for the passage of nerves, blood vessels, and lymphatic vessels.
- (4) Provide support to the skull and provide articular surfaces for the ribs and vertebrae.
- (5) Directly contributing to respiratory movements.

(29) How many bones are there in a human limb?

- (1) 32 (2) 26 (3) 30 (4) 33 (5) 24

(30) The genotype ratio of the children that can be produced by a woman heterozygous for blood type A and a man heterozygous for blood type B is,

- (1) 1:1:1:1 (2) 1:2:3:1 (3) 9:3:3:1 (4) 1:1:2:1 (5) 1:2:1

(31) The artificial breeding is geared towards producing a uniform set of plants or animals with traits desirable to humans. But some adverse consequences can be arise with this and select the situation which not an unfavorable ,

- (1) Decrease in genetic diversity.
- (2) Low resistance to infections.
- (3) Higher prevalence of congenital anomalies.
- (4) Presence of the resistant trait in the gene pool.
- (5) reduced fertility.

(32) Several events of DNA replication are given below. Select the answer which contains the correct sequence of events,

- a) Stabilization of single stranded DNA
- b) Relaxation of tightly wound DNA
- c) Extension of new DNA strand.
- d) Unzipping of the double helix
- e) Priming of DNA synthesis by RNA primer

- (1) b, d, a, e, c 3) b, a, d, e, c
- (2) d, b, a, e, c 4) d, a, b, c, e 5) c, b, d, a, e

(33) Which is not an advantage to using STR in DNA fingerprinting technology.

- (1) Easily amplified by PCR.
- (2) Can be used for coding sequences.
- (3) They are abundant in the genome.
- (4) Highly variable polymorphism.
- (5) The presence of a large number of characteristic STRs.

(34) The following are some of the animals found in an ecosystem in Sri Lanka. The relevant ecosystem is,

- Sri Lanka yellow eared bul bul
- Sri Lankan highlands shrew
- Sambar

- (1) Tropical wet lowland rainforests
- (2) Tropical montane forests
- (3) Tropical dry mixed evergreen forests
- (4) Tropical thorn forests
- (5) Savannah

(35) Substances that have a greater heat absorption capacity than CO₂ is,

- (1) CO
- (2) NO₂
- (3) O₃
- (4) SO₂
- (5) Black carbon

(36) Some of the diseases caused by microorganisms in humans and the pathogenic microorganisms are given below. Select the incompatible combination,

- | | |
|--------------------------|-------------------------------------|
| (1) Tetanus | - <i>Clostridium tetani</i> |
| (2) Tuberculosis | - <i>Mycobacterium tuberculosis</i> |
| (3) Gonorrhea | - <i>Neisseria gonorrhoeae</i> |
| (4) Bacterial meningitis | - <i>Haemophilus influenzae</i> |
| (5) Pneumonia | - <i>Streptococcus aureus</i> |

(37) The most commonly used for hospital waste decontamination are:

- (1) Pasteurization
- (2) Incineration
- (3) Dry heat sterilization
- (4) Moist heat sterilization
- (5) Hot air sterilization

(38) Which of the following is not associated with increased microbial invasiveness?

- (1) Ability to overcome the host's defense mechanisms.
- (2) Ability to invade host tissue.
- (3) Ability to multiply for colonization.
- (4) The presence of numerous extracellular enzymes.
- (5) Reduction in violence.

(39) The causative agent of itch disease in ornamental fish is,

- | | |
|-----------------|----------------|
| (1) A bacterium | (4) A virus |
| (2) A Fungi | (5) A protista |
| (3) A Fluke | |

(40) The incubation period for the disease after being bitten by an *Aedes* mosquito is,

- (1) 2-8 days.
- (2) 4-10 days.
- (3) 3-8 days.
- (4) 5-7 days.
- (5) 2-6 days.

* For each of the questions 41 to 50 one or more of the responses is/are correct. Select the combination of correct responses and then select the correct number.

1	2	3	4	5
A,B,D	A,C,D	A,B	C,D	Any other response or Combination of responses correct

(41) Which of the following is not a function/ functions performed by the membrane-bound structures contained in eukaryotic cells?

- (A) Detoxification.
- (B) Acting as locomotive devices.
- (C) A component of the apoplast pathway.
- (D) Protein synthesis.
- (E) Aid in digestion

(42) The correct answer combination from the following is,

- (A) *Gnetum* – Sieve cells
- (B) *Cocos* - Pollen grains with three openings
- (C) *Panicum* - double fertilization
- (D) *Anthoceros* - Homosporous
- (E) *Lycopodium* - dioecious plant

(43) A characteristic that a genus of fungi that produces exogenous asexual spores may have is,

- (A) Chitinous cuticle.
- (B) Coenocytic fungal hyphae
- (C) Endogenous sexual spores,
- (D) Sexually differentiated gametangia.
- (E) Structures with a 9+2 microtubule arrangement.

(44) The false statement/statements about connective tissue are,

- (A) Osteoblasts are present in the ossified lacuna.
- (B) Collagen fibers are densely packed in the connective tissue contained in the ligaments.
- (C) Chondrocytes bind collagen fibers and chondroitin sulfate.
- (D) Organic ions buffers the blood .
- (E) Reticular fibers connect connective tissue to adjacent tissues.

(45) Which of the following is correct regarding the structure and the group/species of organisms that contain it?

- (A) Book lungs - Millipede and centipede
- (B) Green glands - Crabs and snails.
- (C) Contractile vacuoles - Amoeba and Paramecium
- (D) Malpighian tubules - insects and spiders
- (E) lateral excretory tubules - Larva of filaria and earth worm

(46) The human ear plays an important role in maintaining balance. Which of the following is/are correct?

- (A) The semicircular canals and vestibule of the inner ear provide information about the position of the head in space.
- (B) The semicircular canals are important for maintaining balance in posture.
- (C) The Utricle and saccule perceive position with respect to gravity and linear motion.
- (D) The hair cell receptors transform deflection in to an electrical signal and pass in to cerebellum.
- (E) The vestibule is important for understanding angular movements.

(47) Which of the following is true about human embryonic membranes,

- (A) Chorion becomes the main embryonic portion of the placenta.
- (B) The Yolk sac forms a protective membrane around the embryo.
- (C) The Amnion is important for shock absorption.
- (D) The chorion produces the hCG hormone.
- (E) The allantois functions in relation to the development of the stomach.

(48) Select the extincted species from the followings

- (A) Dodo.
- (B) Giant tortoise
- (C) Woolly mammoth
- (D) *Crudia zeylanica*.
- (E) Little Squirrel

(49) What is/are correct regarding prions?

- (A) They can be replicated with the help of host genes.
- (B) Contain nucleic acids
- (C) A type of proteinaceous infected particle.
- (D) Causes neurological diseases
- (E) Larger than viruses.

(50) The conditions required for seed germination is/ are,

- (A) Being a viable seed
- (B) Exposure of seeds to suitable environmental conditions
- (C) Enzyme activation
- (D) Breaking seed dormancy
- (E) Passed through the alimentary canal of an animal



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FINAL TERM TEST – 2026 JUNE

BIOLOGY II

GRADE -13

TIME – 03hrs

Index No :

NAME :

CLASS :

Part A – Structured Essays:

Answer **all** the questions on this paper itself. Write your answer in the space provided for each question. Please note that the space provided is sufficient for your answers and that extensive answers are not expected.

Part B - Essays:

Answer only four question.

For Examiner's Use Only

Part	Question No.	Marks
A	1	
	2	
	3	
	4	
B	5	
	6	
	7	
	8	
	9	
	10	
Total		
Percentage		

Final Marks

In Numbers

In Letters

PART A – Structured Essays

- **Answer all the questions on this paper itself.**

(01)(A) (i) (a) What is a peptide bond?

.....

.....

(b) State the steps of a test orderly, to identify peptide bonds.

.....

.....

.....

(ii) (a) Name two places in cells where oxidative phosphorylation can occur.

.....

.....

(b) Name multicellular and unicellular phyla which locomote using cilia.

- Unicellular phyla
- Multicellular phyla

(iii) State the location of lipids in the plasma membrane of animal cells.

.....

.....

.....

(iv) (a) What is a codon?

.....

.....

(b) List all the stop codons found in Cyanobacteria.

.....

(v) (a) Complete the following regarding *Anabaena*.

- (a) Nitrogen-fixing enzyme -
- (b) Cell wall component -
- (c) Carbon source -
- (d) The place where nitrogen fixation takes place -

(B) (i) (a) Define crossing over in meiosis.

.....

.....

.....

(2)

(b) In which cell type undergo crossing over occur in human spermatogenesis?

(ii) (a) Through which structures does the metastasis take place?

(b) Which gene mutations responsible for frameshift mutations.

(iii) What are the effects on the enzyme at temperatures higher than the optimum temperature?

(iv) State the effect of toxins on the activity of an enzyme.

(v) State the ways in which ATP production in cells is regulated by allosteric regulation.

(C) (i) (a) Define photoprotection.

(b) Mention two important aspects of photoprotection.

(ii) State three characteristics of the leaf mesophyll-cells that differ from the chlorophyll of the bundle sheath cells of C4 plants.

(iii) Explain the reason for the high nitrogen usage efficiency of C4 plants.

(iv) (a) State how a decrease in the $\text{CO}_2:\text{O}_2$ ratio in the cytosol of plant cells affects the productivity of plants.

(3)

(b) Write the carbon fixation reaction in the leaf mesophyll cells of the leaves of the maize plant.

.....

(v) (a) What is the importance of NADH oxidation in anaerobic respiration?

.....

(b) Name an organism that produces ATP only through anaerobic fermentation.

.....

(02)(A) (i) What are the special abilities seen in the proto cell?

.....

(ii) Several living things and their characteristics are given below. Use a tick (✓) to show that they share those characteristics.

	Prokaryotic cellular organization.	Cell walls absent	It could be heterotrophic.	Introns present
a) <i>Rhizobium</i>				
b) <i>Euglena</i>				
c) Diatoms				
d) <i>Methanogen</i>				

(iii) Name the fungal genus that has the following characteristics.

- Possess septa only when reproductive cells are formed,
- Produce endospores.

.....

(iv) (a) State the structures of flowering plants, which corresponding to the following structures in *Selaginella*.

- a) Macrosporophyll -
- b) Microsporangium -
- c) Gametophyte -

(b) What is the advantage of occurring double fertilization in flowering plants?

.....

(v) How is the protection of pollen grains in seed plants ensured?

.....(4)

(B) (i) How does the root apex of a plant differ functionally from the shoot apex?

.....

(ii) (a) What is the function of the Casparian strip in the endodermal cells of plants?

.....

(b) What are the components of the symplastic pathway?

.....

(iii) (a) Write two benefits of cork tissue to a woody plant.

.....

(b) Write how the cork cambium in a woody plant is formed.

.....

(iv) State the forms of absorption of following elements by a plant and their functions.

Element	Form of absorption	Function
P		
N		
Ni		

(v) Which hormone is important for the triple response?

.....

(C) (i) State the type of epithelial tissue that is adapted to perform the following functions in the alimentary canal.

(a) Protection -

(b) Digestion -

(c) Absorption -

(ii) How do hormones contribute to carbohydrate and lipid digestion?

.....

(iii) Write 2 functions of proteins in food.

.....

(iv) (a) How is high blood pressure maintained in the glomerulus?

.....

(b) Which part of the loop of Henle shows water impermeability?

.....

(v) What are the sites of secretion in the process of urine formation?

.....

(03)(A) (i) (a) What is a capillary?

.....
.....

(b) Name two arteries that carry oxygen-poor blood in humans and mention between which structures they carry blood.

Artery

structures

.....
.....

(ii) (a) What are the functions of the face maker?

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

(b) What causes stroke?

.....
.....

(iii) (a) What components contribute to the buffered nature of the blood?

.....
.....

(b) State how cigarette smoke contributes to bronchial inflammation.

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

(iv) Mention two functions of interferons against viruses.

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

(v) State two differences between effector cells and memory cells.

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

(B) (i) (a) What is the function of the peripheral nervous system?

.....
.....

(6)

(b) State two characteristics of the motor system that differ from the autonomic nervous system.

(ii) State how the sodium-potassium pump contributes to maintaining the resting potential.

(iii) (a) What is a neurotransmitter?

(b) State three basic characteristics of a sensory receptor.

(iv) What are the roles of calcitonin in lowering blood calcium ion levels?

(v) What are the trophic hormones secreted by the anterior pituitary gland whose target organs are not the reproductive organs?

(C) (i) What is the reason for the low levels of FSH and LH most of the times during follicular phase?

(ii) What are the functions of the allantois?

(iii) Mention three effects of high progesterone concentrations in the mother's blood during the first trimester of pregnancy.

(iv) State the functions of the following surfaces.

(a) Xiphoid Process -

(b) Coronoid Process -

(c) Odontoid Process -

(7)

(v) Mention two arrangements of the vertebral column to maintain upright posture.

.....

.....

(04)(A) (i) (a) What is a Nucleoid ?

.....

(b) What is the advantage of the formation of supercoils in the architecture of chromosomes in prokaryotes.

.....

(ii) a) Mention two diseases caused by trisomy of asexual and sexual chromosomes,

Trisomy of the sexual chromosome -

Trisomy of the asexual chromosome -

b) "Some genetic disorders are multifactorial". Explain with reasons.

.....

.....

.....

.....

(iii) (a) How does transcription differ from DNA replication?

.....

.....

(b) Write how the codons in the genetic code are arranged.

.....

.....

(iv) What techniques are used in recombinant DNA technology?

.....

.....

.....

.....

.....

(v) What process is the gene gun used for?

.....

(B) (i) What are the differences between the two types of mollicutes?

.....

.....

.....

(ii) State the action of the following antibiotics in the control of microbial diseases.

(a) Daptomycin -

(b) Rifampin -(8)

(iii) (a) What is the bioavailability of a plant?

(b) Write two of the most common bacterial genera that inhabit the Rhizosphere.

(iv) State the main steps in the treatment of drinking water.

(v) Write 3 main objectives of the Human Genome Project.

(C) (i) What are the different interactions that occur in ecosystems?

(ii) The following characteristics are observed in a certain ecosystem in Sri Lanka.

- Precipitation - 2000 mm
- Temperature - Around 16°C
- Altitude - 1500 m above sea level
- Nature of plants - A short canopy and shrubs, umbrella shaped rounded crowns and small leathery leaves

State that ecosystem.

(iii) (a) What is the pH value of rainwater in acid rain conditions?

(b) What environmental conservation process is expected by the Ma Paul Convention?

(iv) (a) State the basic principles of food preservation.

(b) What are the factors that lead to low milling yield for the paddy harvest?

(v) What is the property of the bacteria that allows Bti bacteria to kill dengue vectors?

(9)



NALANDA COLLEGE COLOMBO 10

(G.C.E. (A/L) EXAMINATION – 2026

FINAL TERM TEST – 2026 JUNE

09

E

II

BIOLOGY II

GRADE 13

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- Answer four questions only.

PART B - Essays

- (05) (a) Describe the characteristic features of enzymes.
(b) Describe the contribution of enzymes in DNA replication.
- (06) Explain the process of water loss in angiosperms.
- (07) (a) Describe the events of the cardiac cycle.
(b) Describe the adverse effects of smoking on the respiratory system.
- (08) (a) Describe the structure of the human testis.
(b) Briefly describe the main steps of spermatogenesis.
- (09) (a) Describe the effects of global warming and climatic changes.
(b) Explain the contribution of microorganisms to the nitrogen cycle.
- (10) Write short notes on the following.
(a) Epistasis
(b) Adaptations of the human skeletal system for upright posture.
(c) Use of nanotechnology in medicine.