ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

First Term Test – 2018

Sub: _____Life Science_____ Class: ____ 9 _____ F. M. ____ 75 _____

Duration: ____2 hrs 30 mins___ Date: _____21/04/18_____

Group A

1. Multiple Choice Questions: 1x10=10
   a. Amphibious plants are- algae/ fungi/ bryophyte/ pteridophyta.
   b. Founder of 5 Kingdom classifications is- Lenious/ Whittekar/ Robert Hook/ John Ray
   c. Cell wall is present in- animal cell/ bacterial cell/ plant cell/ none of them.
   d. Which cell organelle is known as protein factory- lysosome/ ribosome/ golgibody/ plastids
   e. Cell wall of plant cells are- living/ non-living/ very hard/ none of them.
   f. Suger of a DNA is a- hexose/ pentose/ tetrose/ heptose.
   g. Who first used the term taxonomy?- Aristotole/ John Ray/ Simpson/ Condolle
   h. Which of the following animals are radially symmetrical- sea star/ Asceris/ snail/ sponges.
   i. The innerts one outside living body is- bacteria/ virus/ mycroplasm/ spiroochocta
   j. Who first named mitochondria- C. Golgi/ Benda/ Robert Hook/ Jagadish Bose.

Group B

2. Match the coloumn: 1x5=5

A	B
I. Vitamin A	A. Asteomalacia
II. Calciferal	B. Vitamin B_6
III. Permicious Antemia	C. Nyctalopia
IV. Vitamin E	D. Vitamin B_{12}
V. Pyridoxin	E. Tocaphenol

3. Write true or false (any 5): 1x5=5
   a. Biotin is Vitamin H.
   b. Proteins do not need nitrogen.
   c. Taenia is example of Platyhelminthes.
   d. The dense spherical body inside the nucleus is called nucleolus.
   e. Cell wall is present in plant cell.
   f. Golgi body is related with specific protein formation for the cells.

4. Fill in the blanks (any 6): 1x6=6
   a. Biology is the science of _____.
   b. The subject which deals with bacteria is called _____.
   c. Excretion is a _____ process.

d. Naked seeded plants are called _____.
e. A mammal that lays eggs is _____.
f. Deficiency of Vitamin ____ leads to scurvy.
g. Colorless plastids in plant cells are called _____.

5. Answer in one word (any 6): 1x6=6
   a. Bacteria belong to which kingdom?
   b. Name one Protista.
   c. What is the full form of RNA?
   d. Beriberi can be cured by which vitamin?
   e. Which hormone needs iodine?
   f. Which cell organelles are present in animal cell but absent in animal cell?
   g. Which type of cell contains cell membrane?

Group C

6. Very short answer type questions (any 9): 2x9=18
   a. What is phagocytosis?
   b. What is organic evolution?
   c. What is molecular biology?
   d. State the main differences between gymnosperm and angiosperm.
   e. What are the common functions of canal system in sponges?
   f. Mention three differences between nucleus and nucleolus.
   g. What is the function of phloem?
   h. What is primoidal utricle?
   i. What is the ascent of sap?
   j. What are the three types of simple permanent tissues in plant?
   k. What is a prokaryotic cell?
   l. What is the complex permanent tissue?
   m. What is plasmodesmata?
   n. What is pirocytosis?

Group D

7. Answer the following: 5x5=25
   a. Write the differences between invertebrates and vertebrates. Or
      Name the five kingdoms of classification by Whittaker.
   b. How GERL system works?
      Or
      Compare animal cell with plant cell.
   c. Draw and label a diagram of animal cell. Or
      Draw and label a diagram of plant cell.
   d. Describe the functions of plastids and mitochondria.
      Or
      Describe the structure and function of cell membrane.
   e. Describe various types of merismatic tissue.
      Or
      Distinguish between callenchyma, parenchyma and sclerenchyma tissue.

Subrata Sarkar, Debjani Chakraborty, Bekin Jesmy P.

ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

First Term Test – 2018

Sub: Life Science **Class:** 9 **F. M.** 75

Duration: 3 hr **Date:** 21/04/18

Group A

1. Multiple Choice Questions: 1x10=10

a. Bryophytes
b. Whittakar
c. Plant cell
d. Ribosome
e. Non-living
f. Pentose
g. Candolle
h. Sea star
i. virus
j. Benda.

Group B

2. Match the coloumn: 1x5=5

A	B
Vitamin A	Nyctalopia
Calciferal	Osteomalacia
Pernicious Anaemia	Vitamin B_{12}
Vitamin E	Tocopherol
Pyridoxin	Vitamin B_6

3. Write true or false (any 5): 1x5=5

a. TRUE
b. FALSE
c. TRUE
d. TRUE
e. TRUE
f. TRUE.

4. Fill in the blanks (any 6): 1x6=6

a. Life
b. Bacteriology
c. Metabolic
d. Gymnosperm
e. Platypus
f. C
g. Leucoplast

5. Answer in one word (any 6): 1x6=6

a. Monera
b. *Chlamydomonas,Amoeba*
c. Ribo Nucleic Acid
d. Vitamin B_1, Thiamine
e. Thyroid hormone/Thyroxine
f. Centrosome, lysosome
g. Plant and animal cells,prokaryotic & eukaryotic cells

Group C

6. Very short answer type questions (any 9): 2x9=18

a. The ingestion of a smaller cell or cell fragment, a microorganism(bacteria), or foreign particles by means of the local infolding of a cell membrane and the protrusion of its cytoplasm around the fold until the material has been surrounded and engulfed by closure of the membrane and formation of a pseudopodia is called phagocytosis.eg., WBC

b. The sequence of events involved in the evolutionary development of a species or taxonomic group of organisms is called organic evolution.

c. The branch of biology that deals with the structure and function of biomolecules essential for the life is called molecular biology.

d.

Gymnosperm	Angiosperm
1.Plant body with woody stem having vascular tissue,leaves & root present. 2.Roots are adventitious.	1.Plant body well differentiated into root,stem,leaves. 2.Roots are woody or adventitious.

e.Gathering food, exchange of gases and excretion

f.Nucleus is the denser part of cell containing nuclear sap, nuclear reticulum and centrioles, all the major physiological activities of cell are done by nucleus. Nucleolus is highly refractile, non-membranous body present within the nucleus. It is responsible for ribosomal RNA synthesis

g. 1.They distribute prepared food or sugar from leaves to different parts of the plant body.
2.The phloem fibres provide mechanical support to the plant body.
3.The phloem parenchyma stores food & water.

h.Peripheral layer of cytoplasm due to central vacuole in plant cells are called primordial utricle.

i.The upwards movement of water and minerals from soil to the leaves is called ascent of sap.

j.Parenchyma, collenchyma, sclerenchyma

k.Primitive cells with no proper nucleus.

l.Complex tissues are the tissues containing more than one type of permanent cells with similar structure and origin e.g.,- phloem.

m.Plasmodesmata are direct cytoplasmic connections through the cell walls of adjoining plant cells.

n. The ingestion of liquid into a cell by the budding of small pinocytic vesicles from the cell membrane.

Group D

7. Answer the following: 5x5=25

a. Invertebrates do not have vertebral column, endoskeleton, cranium or brainbox. These animals are called lower animal having different phylum- porifera, arthopoda, Mollusca, etc.
Vertebrates have vertebral column, endoskeleton, cranium or brainbox.. these are of 5 classes- pisces, amphibian, reptilian, aves, and mammalia
Or
In 1969, R.H Whittaker created 5 kingdoms of living beings. He divided the world into 2 empires and 5 kingdoms. The kingdoms are- Monera, Protista, Fungi, Plantae, Animalia.

b. GERL- golgi body, endoplasmic reticulum and lysosome forms this system. ER synthesizes protein with the help of ribosome, this protein is turned to specific protein molecule required by the cell by golgi odies. The lysosome helps to digest the cell particle by its secretion. This system forms a secretary system of the cell
Or

Animal cells	Plant cells
i.They do not have cell wall	i.They have cell wall
ii.The plastids and large vacuoles are absent	ii.Plastids are present as also large vacuoles
iii.These are round or oval or circular in structure due to elasticity of membrane	iii.These have angular structure due to presence of rigid cell wall
iv.These have centrosome which helps in cell division	iv.Centrosomes are absent

c. Draw and label a diagram of animal cell.
Or
Draw and label a diagram of plant cell.

d. Plastids are of 3 types- chloroplast, chromoplast, leucoplast. Chloroplast is responsible for photolysis of water which is the rate limiting step of photosynthesis.. Chromolpasts is responsible fot the different colour of the flowers which attracts the insectsand helps in pollination. Leucoplast helps in storage of food and gives the plant mechanical support.
Mitochondria help in respiration, i.e., production of heat energy in the living body. It produces 75% of respiratory enzyme hence it is known as "powerhouse of the cell"
Or
Structure:Fluid mosaic model:This model shows that phospholipids are in the shape like the a head and tail.The heads like water (hydrophilic) & the tails doesn't like water(hydrophobic).The tails bump up against each other and the heads are outfacing the watery area surrounding the cell.The two layers of the cell are called bilayers.
Function: It is semi-permeable in nature & helps in osmosis.Intake of food by phagocytosis,it maintains intercellular communication.It is also called plasmalemma.

e. Meristamatic tissue in plants are the tissues which are responsible for its growth. There are 3 types of meristem- apical, lateral and intercalary Meristamatic tissue.
Apical meristem is responsible for growth in length of the plant. They are found in the apical region, i.e., on the top of the shoot and end of root. Lateral meristem is responsible for the lateral growth

which leads to the increase in girth of the plant. Intercalary meristem is responsible for secondary growth.

Or

Parenchyma	Collenchyma	Sclerenchyma
Originates from ground meristem and protoderm	Originates from procambium	Originates from protoderm and ground meristem
Cells are simple living tissue	Simple living cells	Simple dead tissue
Uniformly thin cell wall	Unevenly thick cell wall	Thick cell wall
Cells possess dense cytoplasm, nucleus and smaller vacuoles	Cells possess cytoplasm, nucleus and vacuoles	Cells do not possess cytoplasm or nucleus
Acts primarily as a storage tissue	Storage cum mechanical tissue	Mechanical tissue