

**CANOSSA SECONDARY SCHOOL
PRE – JECAS EXAMINATION JULY 2012
BIOLOGY FORM II**

Candidate's Number

TIME:2HRS

INSTRUCTIONS:

1. This paper consists of three sections A, B and C.
2. Answer ALL questions in sections A and B and only ONE question in section C.
3. All writing must be in blue or black pen except for drawing which must be drawn in pencil and labeled in pen.
4. Write your name / index number in every page of your paper.

SECTION A (30 MARKS)

Answer all questions from this section. Each question carries 10 marks.

1. Questions (i- x) are multiple choice items, select the best answer in each item and write its letter in the table provided.
 - i) The cell wall of fungi contain
 - a) Keratin b) Cellulose c) Chitin d) Glycogen
 - ii) Centrioles
 - a) For respiration process b) Protect the cell from bursting
 - c) They are found in plant cell only d) Help in cell division
 - iii) Euglena locomote by the help of
 - a) Flagellum b) Pseudopodia c) Cilia d) Legs
 - iv) The correct scientific name of Lion is correct written
 - a) *Panthera Leo* b) *panthera leo* c) *Panthera LEO* d) *Panthera leo*
 - v) The overlapping food chains in a community form a
 - a) Pyramids b) Habitat c) Food web d) Niche
 - vi) Water conducting tissue in plant are mainly
 - a) Phloem and xylem b) Chollenchyma c) Phloem d) Xylem vessels
 - vii) Most of the digested food is absorbed in _____
 - a) Stomach b) Large intestine c) Duodenum d) Ileum
 - viii) If the digestive and respiratory tracts were completely separate in humans, there would be no need for
 - a) Swallowing b) A nose c) An epiglottis d) A diaphragm
 - ix) Which transports nutrients to the liver?
 - a) Hepatic portal vein b) Hepatic portal artery c) Hepatic artery d) Pulmonary vein
 - x) Anemia can result from
 - a) An iron deficient diet b) A drop in red blood cell count
 - c) Lack of hemoglobin production d) A drop of WBC count

i	ii	iii	iv	v	vi	vii	viii	ix	x

2. The following statements are either **TRUE** or **FALSE**. In the space provided write TRUE if the statement is correct and FALSE if the statement is not correct.

- i) Human interaction with environment disturbs the climax community _____
- ii) Fungi improve soil fertility through feeding saprophytically _____
- iii) The original source of energy for all organisms in a community are the plants _____
- iv) Ferns belong to the division called bryophyte _____
- v) Fungi have chloroplasts but lack DNA _____
- vi) All types of bacteria cause diseases in human beings _____
- vii) The ileum is the first part of the small intestine _____
- viii) Enzymes are denatured by high temperature _____
- ix) Heat energy can be recycled by photosynthesis process _____
- x) Pancreas has both an exocrine and endocrine function _____

3. Match the phrase or terms in LIST A with that in LIST B by writing its letter in the space provided in the table of the end of the question.

LIST A	LIST B
i) Do not have centrioles	a) Rhizobium
ii) Stunted growth and leaves become yellow	b) Autotrophs
iii) Non-vascular plants	c) Growth curvature
iv) Method of waste disposal	d) Viral infection
v) Role of an organism in a community	e) Water, soil and air
vi) Abiotic component	f) Plant cells
vii) Movement but in plants	g) Nitrogen deficiency
viii) Organisms mostly found in the first trophic level in an ecosystem	h) Niche
ix) A symbiotic bacteria in leguminous plants	i) Animal cell
x) Hepatitis	j) Mutualism
	k) Incineration
	l) Heterotrophs
	m) Bryophytes
	n) Bacterial infection
	o) Population
	p) Burning

A	i	ii	iii	iv	v	vi	vii	viii	ix	x
B										

SECTION B (50 MARKS)

This section consists of five short answer questions. You are required to answer ALL questions from this section. Each question carries 10 marks.

4.i) What are the products of digestion of starch, protein and fats which are absorbed by the ileum?

- i) Starch _____
- ii) Proteins _____
- iii) Fats _____

ii) What characteristics of the small intestine enable it to absorb digested food efficiently? Mention four characteristics

- a) _____
- b) _____
- c) _____
- d) _____

5.a) Define the following biological terminologies

- i) Ecological niche _____

- ii) Population _____

- iii) Balance of nature _____

- iv) Ecosystem _____

- v) Habitat _____

b) Name three processes which;

- i) Add nitrate to soil

- ii) Remove nitrates from the soil

6.a) Complete the following table

	ORGANISM	KINGDOM	PHYLUM
i	Common Mould		
ii	Moss plant		
iii	Paramecium		
iv	mushroom		

b) Draw a diagram of a fern plant and label the following: frond, stem and sori

7.a) Explain why it is important to study biology. Give five reasons

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

b) Explain the functions of the following

- i) Mirror _____

- ii) Diaphragm _____

- iii) Iodine tincture _____

- iv) Eusol _____

- v) Stage _____

8.a) State four ways of preventing accidents at home and school

