

**CANOSSA SECONDARY SCHOOL
PRE-JECAS EXAMINATION AUGUST 2013
BIOLOGY FORM II**

TIME:2.30HRS NAME.....STREAM.....

INSTRUCTIONS:

1. *This paper consists of sections A, B and C.*
2. *Answer all questions in sections A and B and ONE question in section C.*
3. *Use blue or black pen in all writing and labeling EXCEPT for diagrams which must be drawn using a pencil.*
4. *Write your name in every page.*

SECTION A (30 MARKS)

1. Select the correct answer in each item and write its letter in the table provided
- i) Which of the following is Abiotic factor?
a) Producer b) Temperature c) Decomposer d) Consumer

 - ii) Which of the following plant is least complex?
a) Fern b) Palm tree c) Pine d) Moss

 - iii) What is the function of ribosome?
a) Production of proteins b) Packaging of proteins
c) Defence against foreign bodies d) Energy production

 - iv) Which of the following is different than others?
a) Vitamin A b) Vitamin E c) Vitamin D d) Vitamin B₁

 - v) Pancreatic juice contains enzymes which digest:
a) Proteins only b) Proteins and carbohydrates only
c) Fats only d) Protein, starch and fats

 - vi) Which of the following is not a disease and disorder of the human circulatory system?
a) Anaemia b) Tonsillitis c) Leukaemia d) Arteriosclerosis

 - vii) Which of these does NOT derive from the study of biology?
a) Medicine b) Pharmacy
c) Electronic engineering d) Genetic engineering

 - viii) The term inorganic (non-living) is used to describe matter
a) Is now alive b) Has never been alive
c) Was once alive but is now dead d) Respires

 - ix) Which is the most fundamental difference in habit between a typical animal cell and a green plant cell?
a) Nutrition b) Excretion c) Growth d) Respiration

 - x) Water entering a cell by osmosis creates pressure on the cell wall. A cell in this state is said to be:
a) Plasmolytic b) Turgid c) Haemolysed d) Hydrolysed

i	ii	iii	iv	v	vi	vii	viii	ix	x

2. The following statements are either correct or not correct. Write TRUE if the statement is correct or FALSE if the statement is not correct.

- i) All members of Kingdom fungi have bodies made up of network of tube like filaments called hyphae. _____
- ii) Posterior vena cava and inferior vena cava perform the same function _____
- iii) Variated leaves are used to taste if starch is produced during photosynthesis _____
- iv) The soluble form of milk is called casein _____
- v) Candidiasis is fungal sexually transmitted disease _____
- vi) Women genital mutilation is a type of a good sexual health _____
- vii) Lack of nitrogen in plants leads to a condition known as chlorosis _____
- viii) Hormones are biological catalyst _____
- ix) Plasmodium exhibits both plant and animal characteristics _____
- x) Tuberculosis may be the direct result of drinking contaminated milk _____

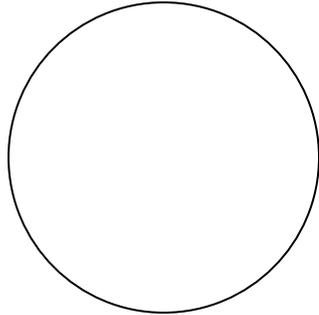
3. Match the items in LIST A with the correct item in LIST B by writing its letter below the number of the corresponding item in LIST A in the table provided

LIST A	LIST B
i) A valve found between left auricle and left ventricle	a) Zinc
ii) Its digestion starts in the stomach	b) Bisupid valve
iii) Help in nutrient recycling	c) Fern
iv) An example of bryophytes	d) Liverwort
v) Heart, the flower and leaf	e) Protein
vi) Used to give sharp image of a specimen under observation	f) Endemic disease
vii) Irresponsible behaviour	g) Examples of tissues
viii) Wuchereria bancrofti	h) Bacteria
ix) Binomial nomenclature	i) Coarse adjustment knob
x) A micronutrient (element)	j) Examples of organs
	k) Prostitution
	l) Fertilizers
	m) Fine adjustment knob
	n) Cause elephantiasis
	o) Cause schistosomiasis
	p) Doing exercises
	q) Used to test carbon dioxide
	r) Nitrogen
	s) Carlus Linnaeus
	t) Starch
	u) Tricuspid valve

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SECTION B (50 MARKS)

- 4.a) What is transpiration?
b) Mention three external factors which affect transpiration
c) List down three importance of transpiration
- 5.a) What is osmotic pressure?
b) The diagram below shows the position of various tissues in a cross section through a plant



- i) Which part of a plant has its tissues distributed as shown in this diagram?
ii) Name the parts labeled A to F
iii) Give the label letter, and the name of the parts which:
a) Are vascular tissues b) Transport the products of photosynthesis
c) Support the plant
- 6.a) Define nitrogen fixation
b) Mention three processes which
i) Adds nitrogen to the soil (ii) Removes nitrogen from the soil
c) State the differences between division Bryophyte and division pteridophyta
- 7.a) Distinguish a balanced diet and malnutrition
b) Mention the nutritional requirements of expectant and lactating mothers
c) Draw a well labeled diagram for an animal cell.
- 8.a) Define respiration b) Write down four principles of personal hygiene
c) Explain why during digestion the food is
i) Alkaline when in the mouth ii) Acidic when in the stomach
iii) Alkaline when in the ileum

SECTIONS C (20 MARKS)

9. Write an essay on Kwashiorkor using the following guidelines
i) Causes ii) Symptoms iii) Methods of prevention
10. Food preservation is very important in human life. Discuss its importance under the following headings
a) Need for food preservation
b) Local food preservation methods and their biological effects
c) Advantages of local food preserving methods.

END.