

# ***City International School***

## **FIRST TERMINAL EXAMINATION – 2013 - 2014**

**Date : 07/08/2013**

**Marks 80**

**Std : IX**

**Subject : Biology (Paper III)**

**Time : 2 hrs**

Answer to this question must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is spent in reading the question paper.

The time at the head of this paper is the time allowed for writing the answers.

Attempt all questions from SECTION A

and four questions from SECTION B.

The intended marks for questions or parts of questions are given in the bracket. ( )

### **SECTION A [40 MARKS]**

**Attempt all questions**

#### **Question 1**

**a. Name the following. (5)**

- i. Plastid which is green.
- ii. Mineral present in haemoglobin.
- iii. Enzymes which digest fats in ileum.
- iv. The structure where exchange of gases takes place in lungs.
- v. The pointed tooth for holding and tearing.

**b. Match the items in column A with those in column B. (5)**

<b>Column A</b>	<b>Column B</b>
i. Cartilaginous	Epiglottis
ii. Large surface area	Diaphragm
iii. Breathing movement	Bronchi
iv. Voice	Alveoli
v. Swallowing	Larynx

**c. Fill in the blanks. (5)**

- i. The lings are located in the \_\_\_\_\_ cavity.
- ii. \_\_\_\_\_ are hereditary units.
- iii. Absence of roughage in the diet leads to \_\_\_\_\_.
- iv. Liver produces \_\_\_\_\_ only in embryo.
- v. The basic building blocks of proteins are \_\_\_\_\_.

**d. Define. (5)**

- |                   |                   |                   |
|-------------------|-------------------|-------------------|
| i. Respiration    | ii. Digestion     | iii. Malnutrition |
| iv. Balanced diet | v. Vital capacity |                   |

**e. Choose the most appropriate option in the following statements. (5)**

- i. The covering of the lung called
  - 1. Pericardium
  - 2. Pleural membrane
  - 3. Endocardium
  - 4. Epidermis
- ii. Pylorus is an opening from
  - 1. Oesophagus into stomach
  - 2. Mouth cavity into oesophagus
  - 3. Stomach into intestine
  - 4. Intestine into rectum
- iii. Which of these diseases means lack of haemoglobin in blood?
  - 1. Pellagra
  - 2. Scurvy
  - 3. Anaemia
  - 4. Diarrhoea
- iv. Which of these structure can be said to be the “brain of the cell.”
  - 1. Mitochondria
  - 2. Chloroplast
  - 3. Endoplasmic reticulum
  - 4. Nucleus
- v. Which of these pairs of nutrients has both as simple sugars (monosaccharides)
  - 1. Sucrose and glucose
  - 2. Glucose and maltose
  - 3. Fructose and glucose
  - 4. Maltose and lactose

**f. State one function of the following cell organelle. (5)**

- i. Centrosome
- ii. Ribosomes
- iii. Golgi bodies
- iv. Endoplasmic reticulum
- v. Lysosomes

**g. Find the odd one out form this series and write the correct group for other terms. (5)**

- i. Cell wall, chloroplast, large vacuole, mitochondria
- ii. Stomach, small intestine, oesophagus, liver
- iii. Lungs, trachea, alveoli, heart
- iv. DNA, chromatin, nucleolus, golgi body
- v. Ethyl alcohol, carbon dioxide, starch, oxygen absence

**h. State whether the following statements are True or False. If false, rewrite the correct form of the statement by changing the first or last word only. (5)**

- i. Goitre happens because of deficiency of vitamin C.
- ii. Ethyl alcohol is the end product of anaerobic respiration in muscle cells.
- iii. Cytoplasm and protoplasm together constitute protoplasm.
- iv. All enzymes are proteins.
- v. Tissue respiration means chemical changes occurring inside the cell.

**SECTION B [40 MARKS]**  
**Attempt any four questions from this section.**

**Question 2**

- a. i. Mature RBC do not have mitochondria. Give reason. (5)  
ii. Define Cell.  
iii. State the function of vacuole.  
iv. Differentiate between Cell wall and Cell membrane base on their permeability.
- b. **Compete the following table.** (5)

	MINERALS	DEFFICIENCY DISEASES
1.	Cobalt	
2.	Calcium	
3.	Sodium	
4.	Copper	
5.	Potassium	

**Question 3**

- a. **Name the structures associates with following functions.** (5)  
i. Prevents the food from entering the trachea during swallowing.  
ii. Transport oxygen to the body cells.  
iii. Helps to increase the volume of the chest cavity lengthwise.  
iv. Combines with the oxygen in the lungs.  
v. Provides actual diffusion of respiratory gases in the lungs.
- b. **Answer the following questions.** (5)  
i. State any two characteristics of an Enzymes.  
ii. Name any two types of Salivary glands.  
iii. Give any two reason why water is necessary in our body.  
iv. Name the following parts of the tooth:-  
1. The hardest substance making the covering of the tooth.  
2. The soft connective tissue contained in the central space of the tooth.  
3. Bone – like structure fixing the root in position.  
4. Part exposed above the gum.

**Question 4**

- a. **Differentiate between the following pairs on the basis of the aspect given in the bracket.** (5)  
i. Residual volume and Dead air space (Definition)  
ii. Macronutrients and Micronutrients (Definition)  
iii. Plant cell and Animal cell (Centrosome)  
iv. Kwashiorkor and Maramus (Any one symptom)  
v. Anaerobic respiration and Aerobic respiration (Definiton)

- b. Give alongside is a diagrammatic sketch of a kind of part in human lungs (5)**
- Name the part numbered 1 – 4
  - What do the arrows 5 and 6 indicate?
  - Give the overall chemical equation to represent the process of respiration in humans.

### Question 5

- a. Complete the following table: (5)**

Vitamins	Scientific Name	Deficiency diseases
B12	_____1_____	_____2_____
_____3_____	Phylloquinone	_____4_____
B3	_____5_____	_____6_____
_____7_____	Folic acid	_____8_____
C	_____9_____	_____10_____

- b. Observe the given figure and answer the following questions: (5)**
- What does the figure represent?
  - Label the parts 1 to 3
  - Mention three ways in which the above organ of a mammal is adapted for absorption of digested food.
  - Name the pigments present in bile.

### Question 6

- a. (5)**
- Give the chemical formula of starch.
  - State any two functions of water.
  - Fill in the blanks.
    - Sucrose is made up of = \_\_\_\_\_ + \_\_\_\_\_
    - Lactose is made up of = \_\_\_\_\_ + \_\_\_\_\_

- b.**
- i. Name the enzyme which digests: (5)
    - 1. Proteins in duodenum
    - 2. Sucrose in the ileum
    - 3. Starch in the mouth
  - ii. Define deamination.
  - iii. What are the end products of digestion of:
    - 1. Fats
    - 2. Maltose

**Question 7**

- a.**
- i. Observe the given figures and answer the following question. (5)
    - 1. Label the parts 1, 2, 3 and 4
    - 2. What is the role of the organs labelled 2 and 3?
  - ii. Define peristalsis.
  - iii. State the function of Saliva.
- b. Answer the following questions.** (5)
- i. What is the role of Hydrochloric acid during digestion?
  - ii. Food tastes sweeter when chewed for a long duration. Give reason.
  - iii. People climbing to high altitudes may suffer from dizziness and unsteady.
  - iv. Why proteins necessary in our food?
  - v. Explain Hypoxia.