

GREENLAWNS SCHOOL, WORLI

TERMINAL EXAMINATION: 2016-17

BIOLOGY

Std: IX

Date: 3/10/2016

Marks: 80

Time: 2 hrs

Answer to this paper must be written on the paper provided separately. You will **not** be allowed to write during the first **10** minutes. This time is to be spent in reading the Question paper.

**Section I** is compulsory. Attempt **any four** questions from **Section II**.

**SECTION I (40 Marks)**

*Attempt all questions from this Section*

**Question 1**

(a) Name the following:

[5]

- i. Another name for external respiration.
- ii. Animals with a two-layered body wall and a mouth surrounded by tentacles.
- iii. The lateral outgrowths given out by each conjugating hypha of *Rhizopus*.
- iv. A nitrifying bacteria.
- v. The cavity in the body in which the human lungs are located.

(b) Explain the following terms:

[5]

- |                           |                 |
|---------------------------|-----------------|
| i. Food chain             | iv. Toxins      |
| ii. Binomial nomenclature | v. Fermentation |
| iii. Hypoxia              |                 |

(c) Differentiate between the following pairs on the basis of what is given in brackets: [5]

- i. Flora and fauna (meaning)
- ii. Tidal volume and residual air (volume of air)
- iii. Pasteurisation and irradiation (technique in food preservation)
- iv. Vibrio and bacilli (shape)
- v. Inspired air and expired air (percentage of carbon dioxide)

(d) Give scientific reasons for the following:

[5]

- i. The alveoli are covered with blood capillaries.
- ii. Bat can fly yet it is not a bird.
- iii. Fishes are said to be cold-blooded.
- iv. Serums are used as a preventive measure against bacterial invasion.
- v. The earthworm is highly used in agriculture.

(e) Fill in the blanks by using suitable words:

[5]

- i. The term ecosystem is derived from the Greek word \_\_\_\_\_
- ii. The inner lining of trachea is formed of \_\_\_\_\_
- iii. A group of genera with certain common characteristics form a \_\_\_\_\_

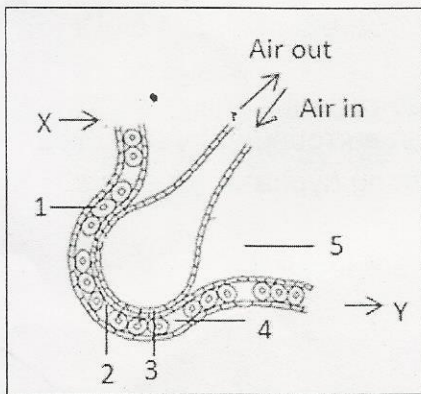
- iv. \_\_\_\_\_ bacteria may take epidemic shape and cause widespread death generation after generation.
- v. Yeast reproduces asexually by \_\_\_\_\_

(f) Classify the following organisms: [4]

- i. Tiger
- ii. Man

(g) Draw a neat diagram of a bacterial cell and label – flagellum, capsule, cell wall, cell membrane and bacterial chromosome. [4]

(h) The figure below represents gas exchange in an alveolus. Observe and answer:



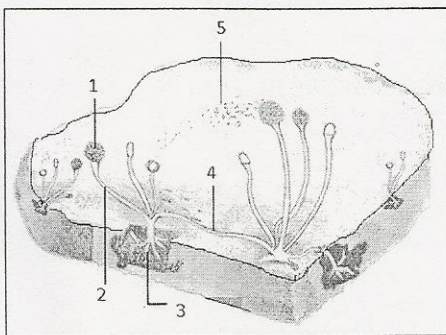
- i. Label parts 1 to 5. [2½]
- ii. X and Y represent blood capillary. Where are X and Y coming and going to? [2]
- iii. What is the difference between the blood flowing from X and Y? [2]
- iv. What is the importance of part 3 in the figure? [½]

## SECTION II (40 Marks)

Answer **any four** questions from this Section

### Question 2

(a) The figure below represents a part of a fungus growing on a piece of stale bread. [5]



- i. Name the fungus.
- ii. Name the parts 1 to 5.
- iii. Name the kingdom to which the above organism belongs.
- iv. Why is it not possible for the fungus to prepare its own food?

(b) Give one main similarity and difference between each of the following pairs: [4]

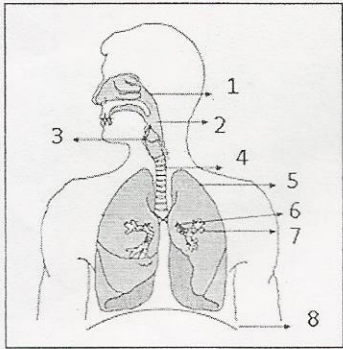
- i. Snake and lizard
- ii. Whale and shark

(c) Define genus. [1]



### Question 3

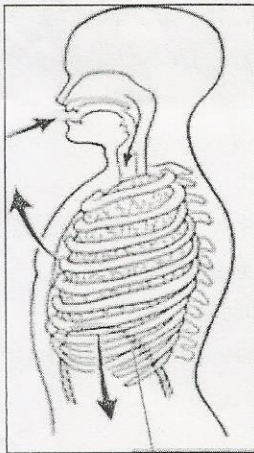
The figure below represents the respiratory system of man showing the right and the left lungs:



- Label the parts to which the guidelines point. [4]
- What role do the following play in breathing – nasal hairs, larynx, diaphragm. [3]
- Cellular respiration occurs in two main phases at two different places inside the cell. Explain these two phases. [3]

### Question 4

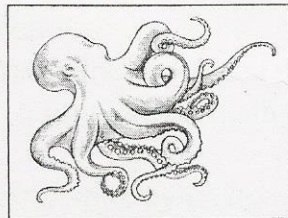
- Draw a neat and labelled diagram to show binary fission in bacteria. [2]
- Give two examples of each: [2]
  - Antibiotics
  - Vaccine
- Observe the diagram given below and answer the questions that follow:



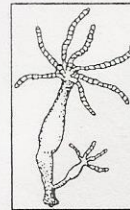
- Identify this breathing movement. [1]
- Give any 3 reasons for your above answer. [3]
- How are breathing movements largely controlled? [1]
- What is vital capacity? [1]

### Question 5

- Study the figures and identify the animals given below. Mention the phylum or class they belong to. Write two features of each phylum or class. [6]



(i)

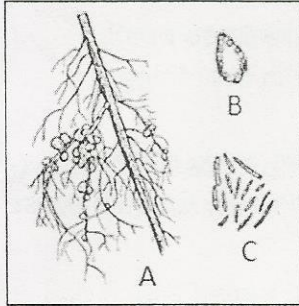


(ii)

- Explain the role of bacteria and fungi in industry. [4]

### Question 6

(a) Given below is a diagram of the roots (A) of certain plants. (B) and (C) are related to (A) showing enlarged views.



- i. Name any one plant whose roots will show as in A. [1]
- ii. What is B? [1]
- iii. What is C? [1]
- iv. Describe the process of nitrification. [3]

(b) Write two characteristic features of the following phyla: [2]

- i. Mollusca
- ii. Annelida

(c) Given below are two examples of hybrids produced by man. Name two closely related animals by interbreeding between which these hybrids have been produced. [2]

- i. Geep
- ii. Mule

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