

GREENLAWNS SCHOOL, WORLI
TERMINAL EXAMINATION: 2018-19
BIOLOGY

Std: IX

Marks: 80

Date: / /2018

Time: 2 hrs

Answer to this paper must be written on the answer booklet provided to you.

The first 10 minutes are to be spent in reading the Question paper. The time given at the head of this paper is the time allowed for writing the answers. All questions are compulsory. Do not waste paper. Leave only one line after each answer.

I A) Name the following: [5]

- i. A technique of partial sterilisation applied usually to milk.
- ii. A large hole at the back of the cranium through which the spinal cord passes.
- iii. A condition due to deficiency of oxygen reaching the tissues.
- iv. The first antibiotic discovered by Alexander Fleming.
- v. Vertebrates with two-chambered heart.
- vi. The parts of skeleton which help to articulate the limb bones to the axial skeleton.
- vii. The membranous coverings of the lungs.
- viii. The largest division in the classification of plants and animals.
- ix. Strong germ-killing substances that are applied on spots.
- x. The plant with scientific name *Mangifera indica*.

B) Fill in the blanks: [5]

- i. The _____ secretion of the nose entraps harmful particles.
- ii. _____ bind the bones together.
- iii. In DTP, T stands for _____
- iv. Glycolysis occurs in _____ of the cell.
- v. Echinoderms move by means of _____
- vi. The _____ is a long flat bone lying in the middle of the front part of the chest.
- vii. Wrist bones are called _____
- viii. Genetic engineering has made it possible to introduce the human genes in certain bacteria like _____
- ix. White blood cells squeeze out of the walls of the blood capillaries by the process of _____
- x. _____ is a group of plants bearing naked seeds.

C) State whether the following statements are true or false. If false, rewrite the correct statement: [5]

- i. TAB vaccine contains live virulent germs.
- ii. The nails and the teeth though hard, are not bones.
- iii. Aerobic respiration produces lactic acid.

- iv. Antibiotics are used as food preservatives.
- v. Red marrow of the bones is made up of adipose tissue and blood vessels.
- vi. In amphibians, the tympanum lies on the surface of the skin.
- vii. The diaphragm is flattened at inspiration.

D) Explain the following terms: [5]

- i. Serum
- ii. Antagonistic muscles
- iii. Vital capacity
- iv. Thallophytes
- v. Antibiotics

E) Differentiate on the basis of what is indicated in brackets: [5]

- i. Tidal volume and residual volume (volume of air)
- ii. TAB and BCG (disease cured)
- iii. Dogfish and herrings (type of fish)
- iv. Thoracic and cervical (number of vertebrae)
- v. Dorsal and ventral (body direction in animals)

F) Give an example of each of the following: [2½]

- i. An edible fungus
- ii. An egg laying mammal
- iii. Plant with one cotyledon
- iv. Synovial joint
- v. Antiseptic

G) Mention the number of bones forming the following: [2½]

- i. Cranium
- ii. Vertebral column
- iii. Arms
- iv. Pelvic girdle
- v. Pectoral girdle

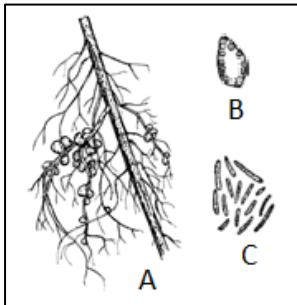
H) The table below shows the difference between inhaled and exhaled air: [5]

Components	% Composition of air	
	Inhaled	Exhaled
Oxygen	20.96	16.4
Carbon dioxide	0.04	4.0
Water vapour	Low	High
Nitrogen	79.00	79.6

- i. Why has the oxygen content decreased?
- ii. From where has the extra carbon dioxide been produced?
- iii. From where has the extra water vapour come from?
- iv. Why there is no change in the percentage of nitrogen?
- v. What happens to the dust particles which get inhaled?

- I) Mention one reason in support of each of the following facts: [5]
- Pteridophytes do not produce seeds.
 - Trachea is lined by ciliated epithelium.
 - Vaccines provide artificially acquired active immunity.
 - The pelvis in females is wide and trough shaped.
 - Jams and pickles have a strong concentration of sugar and salt respectively.

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



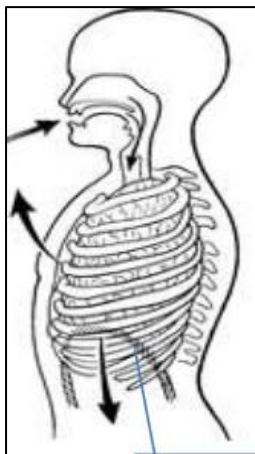
- Name any one plant whose roots will show as in A. [½]
- What are B and C? [1]
- Name a free living bacteria of the soil. [½]
- Draw the nitrogen cycle bringing out each step brought about by specific bacteria. [3]

B) Write short notes on: [4]

- Ribs
- Phylum Porifera

C) What is the role played by bacteria in making of tea and leather? [1]

III A) Observe the diagram given below and answer the questions that follow:



- Identify this breathing movement. [½]
- Give any 2 reasons for your above answer. [2]
- How breathing movements are largely controlled? [½]
- What is vital capacity? [1]

B) Explain the four types of freely movable joints. [4]

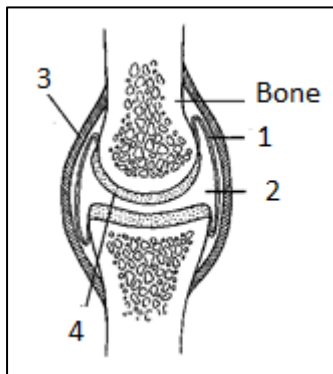
C) Enumerate three characteristics of annelids and give an example. [2]

IV A) Briefly mention why the names of the following phyla have been given so: [2]

- Echinodermata
- Arthropoda
- Nematoda
- Cnidaria

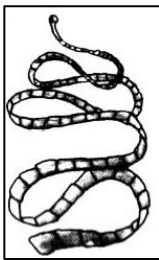
B) State two merits of the local defence system. [2]

C) Observe the figure given below answer the following questions:



- i. Name the type of joint shown in the figure. [½]
- ii. Name the parts 1, 2, 3 and 4. [2]
- iii. State the function of parts 2 and 4. [2]
- iv. What is a joint? [1]
- v. What are bone cells called? [½]

V A) The figure below shows an animal:



- i. Identify the animal. [½]
- ii. To which phylum it belongs? [½]
- iii. State four important features of this phylum. [2]

B) Name the three tiny bones in the ear. [1½]

C) Where are the following situated: [1½]

- i. Acetabulum
- ii. Glenoid cavity
- iii. Centrum

D) State the role of the following in breathing: [2]

- i. Alveoli
- ii. Larynx

E) Give balanced equations to show: [2]

- i. Aerobic respiration in animals
- ii. Anaerobic respiration in animals
