



**DELHI PUBLIC SCHOOL NEWTOWN**  
**SESSION 2021-2022**  
**HALF-YEARLY EXAMINATION (ONLINE)**

**CLASS: IX**  
**SUBJECT: BIOLOGY (PAPER 1)**

**FULL MARKS: 50**  
**TIME: 1 HOUR 30 MINUTES**

**General Instructions:**

- The paper consists of four printed pages.
- Answers should be to the point.
- Copy the question number carefully before answering the questions.
- Marks will be deducted for spelling errors.
- Attempt all questions from Section A.
- Attempt any 4 questions from section B.

**SECTION A**

Attempt all questions.

**QUESTION 1**

a) Give technical term for the following:-

[5]

- i. Non-living part of the plant cell that provides turgidity to the cells.
- ii. The hard substance making the covering of the tooth.
- iii. Whorl of a flower that attracts insects for pollination.
- iv. Large hole at the back part of the cranium.
- v. Slight constriction between the root and the crown.

b) Choose the odd one out from the following and give one reason:-

[5]

- i. Chromoplast, Chloroplast, Leucoplast, Centrosome.
- ii. Vitamin A, Vitamin D, Vitamin E, Vitamin C.
- iii. Style, Ovary, Stigma, Anther.
- iv. Parenchyma, Collenchyma, Sclerenchyma, Meristematic tissue.
- v. Sucrase, Lactase, Amylase, Pepsin.

**SECTION B**

Attempt any four questions.

**QUESTION 2**

a) Define the following terms:-

[5]

- i. Antibiotics.
- ii. Vaccination.
- iii. Antibodies.
- iv. Incineration.
- v. Composting.

b) Answer the following:-

[5]

- i. State any two activities each of WHO and Red Cross.
- ii. Which date is regarded as the Red Cross Day?

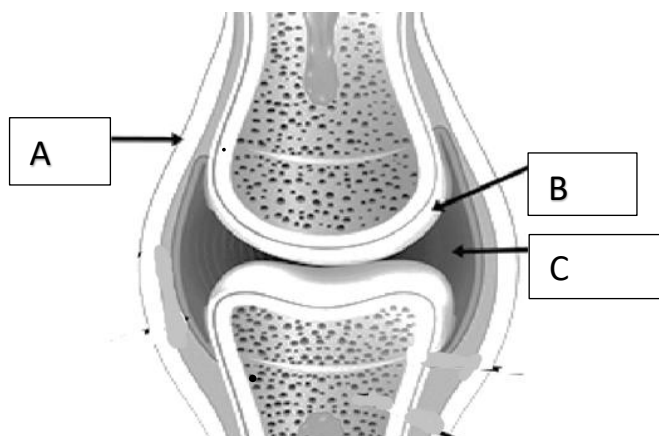
### **QUESTION 3**

a) Differentiate between the following according to the criterion given in brackets:- [5]

- i. Chloroplast and Chromoplast (Pigment present).
- ii. Smooth and Cardiac Muscle (Characteristic feature).
- iii. Squamous and Ciliated Epithelium (Function).
- iv. Xylem and Phloem (Function).
- v. Blood and Lymph (Composition).

b) Observe the diagram given below and answer the following questions:-

[5]



- i. Identify the type of joint shown. Label the parts A, B and C.
- ii. State any two special requirements of this joint.
- iii. State one function of the part labelled as A.

### **QUESTION 4**

a) Give reasons for the following statements:-

[5]

- i. Plasma membrane is also called semi permeable membrane.
- ii. Bacterium is a prokaryotic cell.
- iii. Mitochondria are the power houses of a cell.
- iv. Lysosomes are called the “suicide bags”.
- v. Chloroplasts help in photosynthesis.

b) Complete the table shown below:- (do not copy the table)

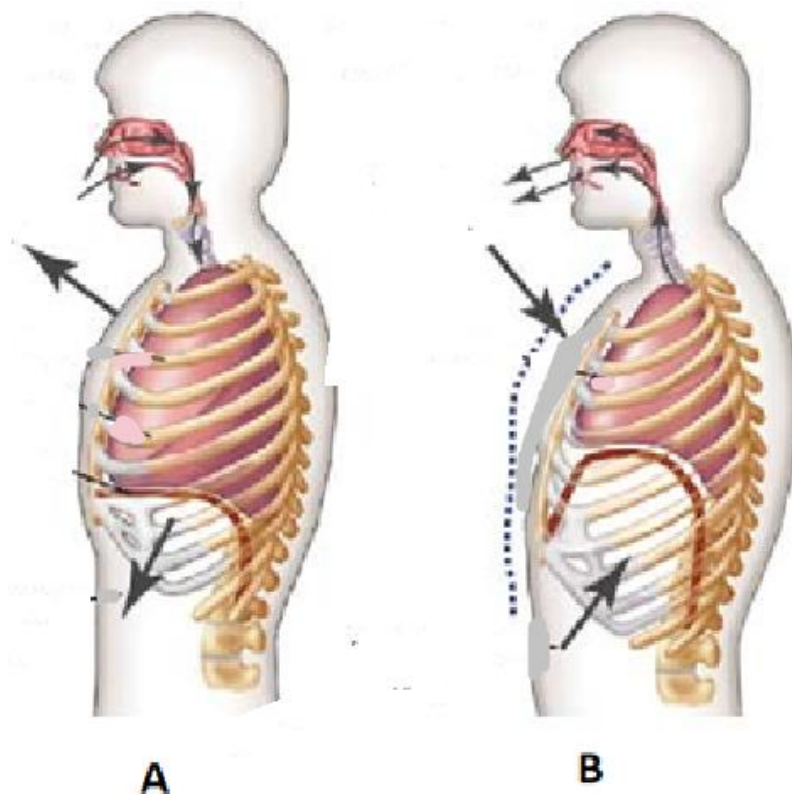
[5]

SECRETION	ENZYME	SUBSTRATE	PRODUCTS
Saliva	i.	ii.	iii.
Gastric juice	Pepsin	iv.	v.
Pancreatic juice	vi.	Starch	vii.
Intestinal juice	Erepsin	viii.	ix.
Intestinal juice	Steapsin	x.	Fatty acids and glycerol

### QUESTION 5

a) Observe the diagram given below and answer the following questions:-

[5]



- i. Identify the processes that are labelled as A and B. Which part of the brain controls this process?
- ii. Differentiate between A and B on the basis of changes in:-
  - a) Diaphragm
  - b) Rib cage
  - c) Volume of the thoracic cavity.

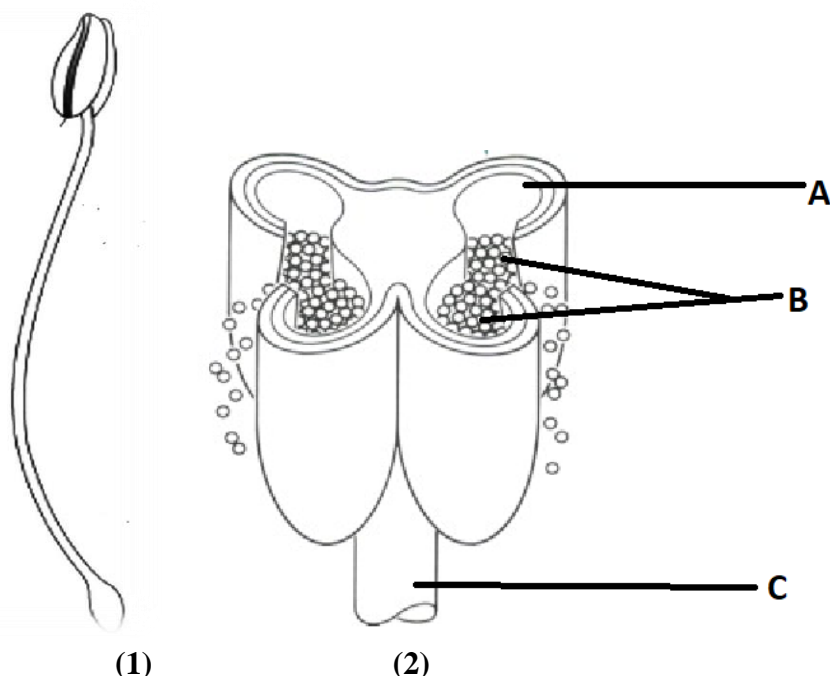
b) Name the disease and the vitamin responsible for the following symptoms of deficiency diseases: [5]

<u>Symptoms</u>	<u>Name of disease</u>	<u>Vitamin responsible</u>
1. Inability to see in dim light.	A	F
2. Bones lack Calcium and turn soft.	B	G
3. Delay in clotting time.	C	H
4. Spongy and bleeding gums, loosening of teeth.	D	I
5. Inflammatory or degenerative changes of the nerves, muscles become weak.	E	J

### QUESTION 6

a) Draw a neat diagram of the neuron labelling any four of its parts. Mention two functions of the neuron. [5]

b) Observe the diagram given below and answer the questions:- [5]



- State whether it is a male or a female reproductive organ.
- Label the parts marked as A, B and C.
- How are the structures labelled as “B” usually ejected?
- Define nectaries. State its function.