



**DELHI PUBLIC SCHOOL NEWTOWN**  
**SESSION 2020-21**  
**ANNUAL EXAMINATION (ONLINE)**

**CLASS: IX**  
**SUBJECT: BIOLOGY**

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

**Instructions:**

- Section I is compulsory.
- Answer any four questions from Section II.
- This paper consists of five printed pages.
- Copy the question numbers carefully.
- Answers should be to the point.
- Marks will be deducted for spelling errors.

**SECTION I (10 Marks)**

Attempt all questions from this section

**QUESTION 1**

(a) Name the following:

[1×5=5]

- i. Bacteria found in the roots of Leguminous plant.
- ii. Tubules present in the Golgi complex.
- iii. The process by which anthers are removed in young flowers.
- iv. The outermost layer of the endosperm in Maize grain which is rich in protein.
- v. The structural and functional unit of life.

(b) Choose the odd one out and mention the category to which the others belong:

Example:

[1×5=5]

Dendrite, Cyton, Axon, Nephron.

Odd one- Nephron, Category of others- Parts of Neuron

- i. Stomach, Oesophagus, Trachea, Colon.
- ii. Tendon, Ligament, Bone, Xylem.
- iii. Retinol, Calciferol, Tocopherol, Riboflavin.
- iv. Humerus, Radius, Ulna, Metatarsal.
- v. Anther, Filament, Pollen sac, Style.

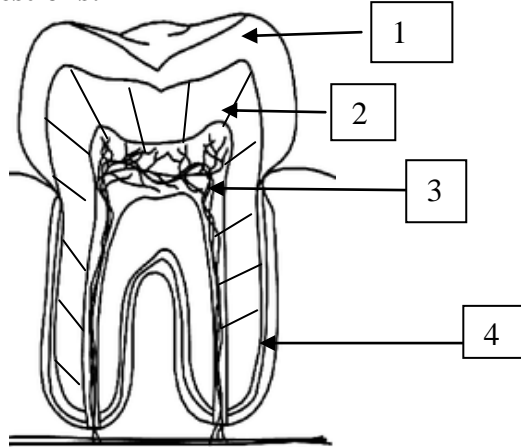
## **SECTION II (40 Marks)**

Attempt any four questions from this section

### **QUESTION 2**

(a) Answer the following questions:

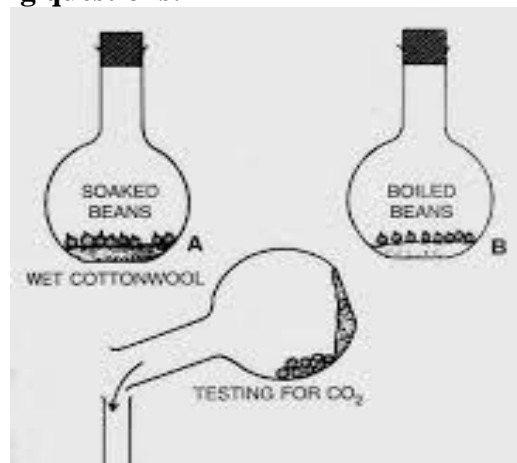
[2+1+2=5]



- Label 1 to 4.
- Mention the name of the salivary gland found below the tongue.
- Mention the name of the enzyme present in saliva. Why does the boiled rice taste sweet when we chew it?

(b) Answer the following questions:

[1+1+1+1+1=5]

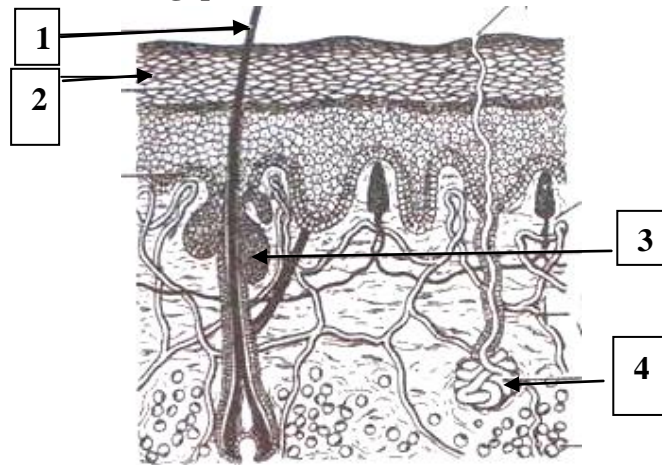


- Mention the aim of the experiment shown above.
- How will you prove that the gas which is produced is Carbon di oxide?
- What would have happened if KOH stick was kept in Flask A?
- Why are the seeds kept in Flask B treated with antiseptic?
- Define the physiological process shown in the above experiment.

### **QUESTION 3**

(a) Answer the following questions:

[2+1+1+1=5]



- i. Label the parts 1 to 4.
- ii. Mention the name of the fluid which is secreted by “4”.
- iii. Mention the name of the principal heat regulating centre of our body. Where is it located in the body?
- iv. “Skin regulates body temperature”. Explain this statement.

(b) Answer the following:

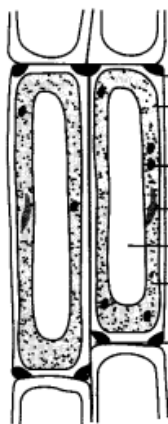
[2+2+1=5]

- i. Draw a neat labelled diagram of a long bone in human body.
- ii. Mention the location of the following:
  1. Scapula.
  2. Sternum.
- iii. Mention the name of the large cup shaped structure into which the head of the femur fits.

### **QUESTION 4**

(a) The following figure represents the cross- section of a tissue. Answer the following questions:

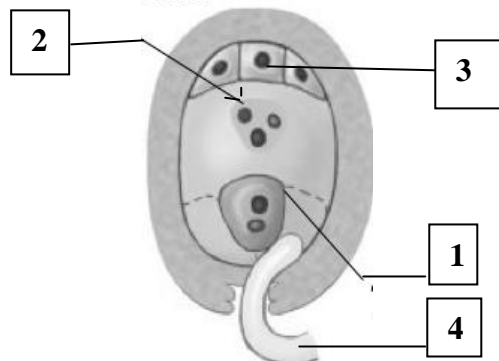
[1+2+2=5]



- i. Identify the tissue shown in the above diagram.
- ii. Mention the characteristic features of the tissue and the function of the tissue.
- iii. Draw a neat labelled diagram of phloem tissue.

(b) Answer the following questions:

[2+1+2=5]



- Label "1" and "2". How is "1" formed?
- Mention the name of the cell marked as "3".
- This type of fertilisation has a special name. What is this type of fertilisation known as and explain why?

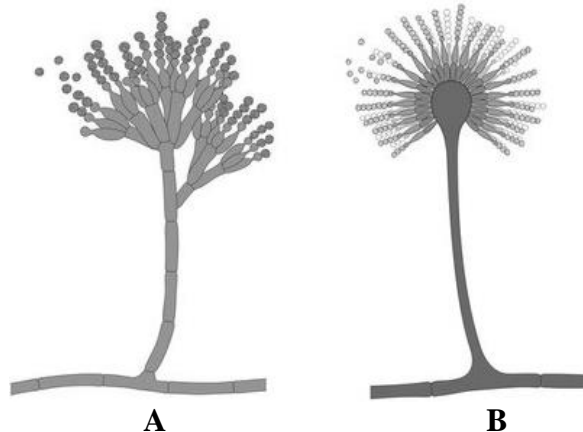
### QUESTION 5

(a) Differentiate between the following pairs according to the criterion given in the bracket: [5]

- Nucleolus and Nucleus (Function)
- Wind pollinated flower and Insect pollinated flower (Any one Flower character)
- Tidal volume and residual volume (Define)
- Leucoderma and Albinism (Type of disorder)
- Parotid gland and Submandibular gland (Location)

(b) Answer the following questions:

[1+3+1=5]



- Identify A and B.
- Define antibiotics and mention any two criteria for a good antibiotic.
- Yeast is used in making wine. Explain with reasons.

**QUESTION 6**

(a) Complete the following table:

[5]

Vitamin	Rich Source (any one)	Deficiency disease
Phylloquinone	A	B
Ascorbic acid	C	D
E	F	Pellagra
G	H	Anaemia
I	J	Beriberi

(b) Give reasons for the following:

[5]

- i. Expired air is warmer than the air that we inspire.
- ii. Dizziness and breathing problems are faced when we go to high altitude.
- iii. Bacteria like *Azotobacter* are useful for agriculture.
- iv. Heavy exercise causes cramps in our muscle.
- v. Nucleus is known as the brain of our cell.