



- (ix) The arrangement of flowers on a branch or floral axis is:
- |                  |                  |
|------------------|------------------|
| a) Placentation. | b) Inflorescence |
| c) Fertilization | d) Fermentation  |

- (x) Hydra and jelly fish belongs to the phylum:
- |             |                    |
|-------------|--------------------|
| a) Porifera | b) Platyhelminthes |
| c) Annelida | d) Cnidaria        |

- (xi) A biology teacher asked her students to give two examples of communicable diseases:

Raj said:	Anaemia and Measles
Sonu said:	Viral fever and Conjunctivitis
Lata said:	Smallpox and Tuberculosis
Abhay said:	Diabetes and Rickets

Who were correct

- |                   |                  |
|-------------------|------------------|
| a) Abhay and Sonu | b) Sonu and Lata |
| c) Raj and Lata   | d) Abhay and Raj |

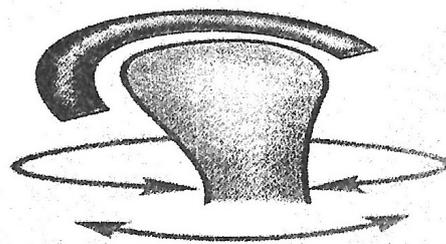
- (xii) Thumb Joint is a
- |                  |                          |
|------------------|--------------------------|
| a) Gliding joint | b) Ball and socket joint |
| c) Saddle joint  | d) Pivot joint           |

- (xiii) **Assertion(A):** The salivary glands produce saliva.

**Reason (R):** Saliva contains enzymes that begins the digestion of proteins.

- |                          |                           |
|--------------------------|---------------------------|
| a) A is True R is false  | b) A is False R is true   |
| c) Both A and R are true | d) Both A and R are false |

- (xiv) During a practical exam, a model showing a type of joint was placed. Students were told to observe and name the type of joint. Which one of the following is the correct answer?



- |                |                          |
|----------------|--------------------------|
| a) Pivot joint | b) Ball and socket joint |
| c) Hinge joint | d) Gliding joint         |

- (xv) **Assertion (A):** Typhoid is an acute infection of liver.

**Reason (R):** Typhoid is caused by Salmonella typhi.

- |                          |                           |
|--------------------------|---------------------------|
| a) A is true R is false  | b) A is false R is true   |
| c) Both A and R are true | d) Both A and R are false |

### Question 2

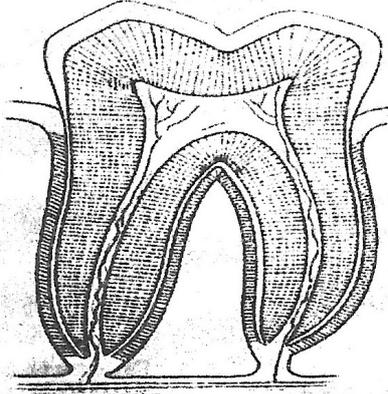
- (i) Name the following:
- A plate-like cap in the frontal part of knee.
  - Tissue that attaches muscles to bones.
  - Special glands found at the base of pistil or petals.
  - Mild chemical applied on the skin to kill germs.
  - Stinging cells of coelenterates.

(ii) Arrange and rewrite the terms in each group in the correct order so as to be in a logical sequence beginning with the term that is underlined. [5]

- (a) Stomach, Small intestine, Oesophagus, Large intestine
- (b) Nuclear membrane , Cytoplasm ,Nucleolus, Cell wall.
- (c) Axon, Dendron, Cell body, Dendrites.
- (d) Sacrum, Cervical, Lumber, Thoracic.
- (e) Bronchi, Nasal passage, Bronchioles, Trachea.

(iii) Given below is the longitudinal section of human teeth. Read the information below the diagram and fill in the blanks. [5]

Teeth are the hardest non-bony structures in the body. They are fixed in the socket of jaw bones. They are used in biting, chewing and grinding of the food.



Each tooth has a visible part called the (a) \_\_\_\_\_ and the part embedded in the (b) \_\_\_\_\_ is root . (c) \_\_\_\_\_ is the hardest substance in the body. (d) \_\_\_\_\_ forms the major part of the tooth. (e) \_\_\_\_\_ is a bone like substance that covers and fixes the root of tooth within the socket of bone.

(iv) Read the explanation given below and name the following: [5]

- (a) The outermost layer of the skin.
- (b) Body segmented with jointed appendages and compound eyes.
- (c) The membrane covering the lungs.
- (d) The longest and strongest bone in the body.
- (e) Flower without pedicel.

(v) Given below is the diagram of human digestive system. Match the organs marked (a) to (e) [5] with their correct functions.

Example: (f) – vi. Receives waste product from the colon.

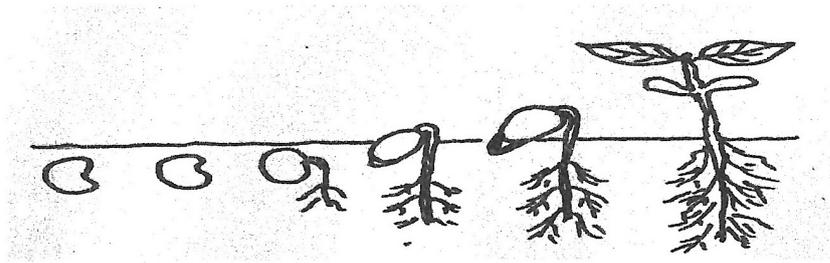
Organs of digestive system	Functions
	i. Acid is produced.
	ii. Bile is produced.
	iii. Most absorption takes place.
	iv. Water is absorbed
	v. Insulin and glucagon is produced.
	vi. Receives waste product from the colon

## SECTION B

(Attempt any four questions from this section)

### Question 3

- i) Define the term digestion. [1]
- ii) What are congenital diseases? Give one example. [2]
- iii) Write two functions of vertebral column. [2]
- iv) Differentiate between tendon and ligament. [2]
- v) The diagram given below represents the germination of a bean seed. [3]  
Study the diagram and answer the following questions:



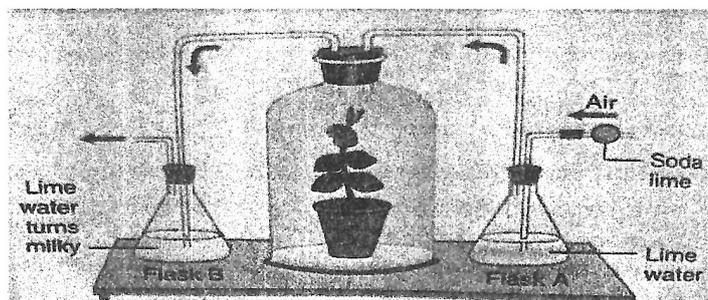
- a) Identify the type of germination.
- b) Give a suitable reason for your answer.
- c) Name the part of the seed that provides nutrition for the growing seedling.

### Question 4

- i) Name the bacteria present in the root nodules of leguminous plants? [1]
- ii) Mention any two activities of Red Cross. [2]
- iii) What is anemophily? Give one example. [2]
- iv) Mention any two industrial uses of bacteria. [2]
- v) Draw a neat and labelled diagram of plant cell. [3]

### Question 5

- i) What is cellular respiration? [1]
- ii) Write the balanced equation of anaerobic respiration in plants. [2]
- iii) Differentiate between vasodilation and vasoconstriction. [2]
- iv) What is malnutrition? [2]
- v) Study the diagram given below and answer the questions that follow: [3]



- a) Why is soda lime placed in the tube?
- b) What changes will you observe in the lime water in flask A and in flask B?
- c) What does this experiment prove?

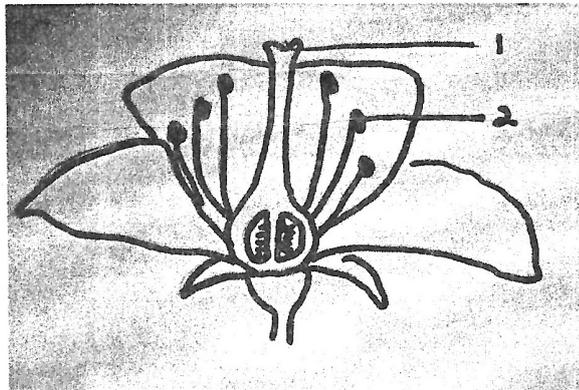
**Question 6**

- i) What is incineration? [1]
- ii) What is the function of villi in the small intestine? [2]
- iii) Differentiate between albuminous and exalbuminous seeds. [2]
- iv) Write any two advantages of cross pollination. [2]
- v) Draw a neat and labelled diagram showing the structure of a synovial joint. [3]

**Question 7**

- i) What are biodegradable wastes? Give one example. [1]
- ii) Differentiate between photosynthesis and respiration. [2]
- iii) Define the following terms: [2]
  - a) Hypervitaminosis
  - b) Pulmonary respiration
- iv) Write the full form of WHO and RNA. [2]
- v) The diagram given below shows a vertical section of a flower. [3]

Study the diagram and answer the following questions.



- a) Label the parts 1 and 2.
- b) Which part produces pollen grain?
- c) Is the flower shown here unisexual or bisexual?

**Question 8**

- i) Why are mitochondria known as powerhouse of the cell? [1]
- ii) Given below are two statements which are incorrect. Rewrite the correct statements: [2]
  - (a) Duodenum is a part of large intestine.
  - (b) Ceruminous glands lubricate hair of eye lashes.
- iii) Mention two characteristics of class reptilia. [2]
- iv) Write two functions of plastids. [2]
- v) Draw a neat and labelled diagram showing the structure of nucleus. [3]