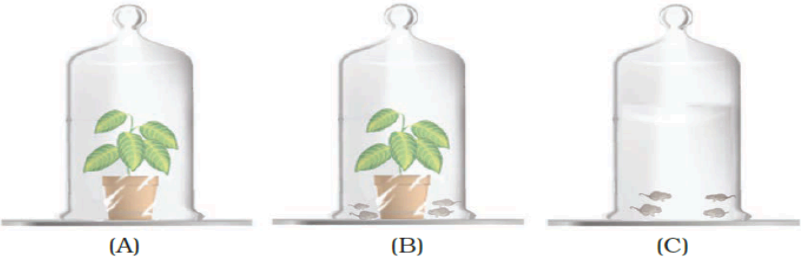


**CLASS VII**  
**BIOLOGY**  
**ANNUAL EXAMINATION (2024-25)**  
**SET C1/C2**  
**MARKING KEY**

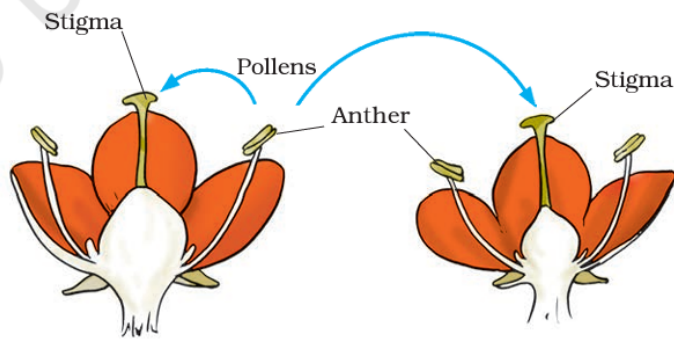
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		<p><b>General Instructions:</b></p> <p>(i) Please note that the question paper consists of 6 printed pages.  (ii) All questions are compulsory.  (iii) The question paper has 10 questions.  (iv) Internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.</p>	
<b>C1</b>	<b>C2</b>	<b>Questions with expected answers</b>	<b>Marks</b>
<b>1</b>	<b>2</b>	<p>What kind of plants are called saprotrophs?</p> <p>(a) Plants that feed on dead and decaying matter.  (b) Plants that prepare their own food.  (c) Plants that feed on insects.  (d) Plants that feed on living organisms.</p> <p><b>Ans: (a) Plants that feed on dead and decaying matter.</b></p>	<b>1</b>
<b>2</b>	<b>3</b>	<p>Choose the correct order of terms that describes the process of nutrition in ruminants.</p> <p>(a) Chewing of cud → swallowing → partial digestion → complete digestion  (b) Swallowing → partial digestion → chewing of cud → complete digestion  (c) Chewing of cud → swallowing → mixing with digestive juices → digestion  (d) Swallowing → chewing and mixing → partial digestion → complete digestion</p> <p><b>Ans: (b) swallowing → partial digestion → chewing of cud → complete digestion</b></p>	<b>1</b>
<b>3</b>	<b>4</b>	<p>Observe the figure given below. Jar A contains only plants. Jar B contains both mice and plants and Jar C contains only mice. In which jar, will the amount of carbon dioxide be the highest?</p> <div style="text-align: center;">  <p>(A)                      (B)                      (C)</p> </div> <p>(a) Jar B  (b) Jar C  (c) Jar A  (d) Jar A and Jar C will have the same amount of carbon dioxide.</p> <p><b>Ans: (b) Jar C</b></p>	<b>1</b>

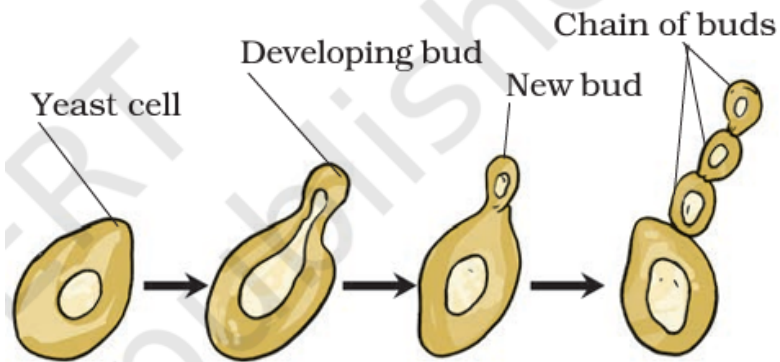
4	1	<p>Arrange the following statements in the correct order in which they occur during the formation and removal of urine in human beings:</p> <p>(1) Ureters carry urine to the urinary bladder.  (2) Waste dissolved in water is filtered out as urine in the kidneys.  (3) Urine stored in the urinary bladder is passed out through the urinary opening at the end of the urethra.  (4) Blood containing useful and harmful substances reaches the kidneys for filtration.  (5) Useful substances are absorbed back into the blood.</p> <p>(a) 4,5,2,1,3  (b) 1,2,3,4,5  (c) 2,1,3,5,4  (d) 4,5,1,2,3  <b>Ans: (a) 4,5,2,1,3</b></p>	1										
		<p>Following questions 5 and 6 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:</p> <p>(a) Both A and R are true and R is the correct explanation of A.  (b) Both A and R are true but R is not the correct explanation of A.  (c) A is true but R is false.  (d) A is false but R is true.</p>											
5	6	<p>Assertion (A): Plants make their food themselves and are called autotrophs.  Reason (R): Human beings and other animals depend on plants for their food.  <b>Ans: (b) Both A and R are true but R is not the correct explanation of A.</b></p>	1										
6	5	<p>Assertion (A): In organisms called lichens, algae, and fungus live together.  Reason (R): Alga prepares food for the fungus whereas fungus does not provide any benefit to the alga.  <b>Ans: (c) A is true but R is false.</b></p>	1										
7	7	<p>Attempt either A or B  (A) Fill the blanks in the table depicting the inhalation and exhalation process in human beings.</p> <table border="1" data-bbox="285 1539 1401 1875"> <thead> <tr> <th data-bbox="285 1539 846 1608">INHALATION</th> <th data-bbox="846 1539 1401 1608">EXHALATION</th> </tr> </thead> <tbody> <tr> <td data-bbox="285 1608 846 1677">ribs move up and outwards</td> <td data-bbox="846 1608 1401 1677">(i) _____</td> </tr> <tr> <td data-bbox="285 1677 846 1747">(ii) _____</td> <td data-bbox="846 1677 1401 1747">Diaphragm moves up</td> </tr> <tr> <td data-bbox="285 1747 846 1816">Space in the chest cavity increases</td> <td data-bbox="846 1747 1401 1816">(iii) _____</td> </tr> <tr> <td data-bbox="285 1816 846 1883">(iv) _____</td> <td data-bbox="846 1816 1401 1883">Air rushes out of the lungs</td> </tr> </tbody> </table>	INHALATION	EXHALATION	ribs move up and outwards	(i) _____	(ii) _____	Diaphragm moves up	Space in the chest cavity increases	(iii) _____	(iv) _____	Air rushes out of the lungs	2
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		<p style="text-align: center;"><b>OR</b></p> <p>(B) Human beings undergo aerobic respiration to meet their energy requirements. However, in certain situations, like during heavy exercise, our muscle cells can also respire anaerobically for a short time.</p> <p>(i) Write the word equation depicting the process of anaerobic respiration in muscle cells during heavy exercise.  (ii) What happens in the human body as a result of this anaerobic respiration process and how can we get relief from it?  <b>Ans:</b>  <b>(A)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">INHALATION</th> <th style="width: 50%; text-align: center;">EXHALATION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">ribs move up and outwards</td> <td style="text-align: center;"><b>(i) ribs move down and inwards</b></td> </tr> <tr> <td style="text-align: center;"><b>(ii) diaphragm moves down.</b></td> <td style="text-align: center;">Diaphragm moves up</td> </tr> <tr> <td style="text-align: center;">Space in the chest cavity increases</td> <td style="text-align: center;"><b>(iii) Space in the chest cavity decreases</b></td> </tr> <tr> <td style="text-align: center;"><b>(iv) Air rushes into the lungs</b></td> <td style="text-align: center;">Air rushes out of the lungs</td> </tr> </tbody> </table> <p style="text-align: center;"><b>OR</b></p> <p><b>(B)</b>  <b>(i)</b></p> $\text{Glucose (in muscle)} \xrightarrow[\text{of oxygen}]{\text{in the absence}} \text{lactic acid + energy}$ <p><b>(ii) The accumulation of lactic acid causes muscle cramps.</b>  <b>We get relief from cramps after a hot water bath or a massage.</b></p>	INHALATION	EXHALATION	ribs move up and outwards	<b>(i) ribs move down and inwards</b>	<b>(ii) diaphragm moves down.</b>	Diaphragm moves up	Space in the chest cavity increases	<b>(iii) Space in the chest cavity decreases</b>	<b>(iv) Air rushes into the lungs</b>	Air rushes out of the lungs	<p><b>0.5X4=2</b></p> <p><b>1</b></p> <p><b>½ + ½</b></p>
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<b>8</b>	<b>8</b>	<p><b>SET C1</b>  The human digestive system consists of a J-shaped organ at the end of the food pipe called 'A'. The inner lining of 'A' organ secretes mucous, digestive juices, and a chemical called 'B'. Identify A and B and mention the function of B in the digestive process.  <b>Ans: A- stomach</b>  <b>B- Hydrochloric acid</b>  <b>Function of B- The acid kills many bacteria that enter along with the food/ makes the medium in the stomach acidic and helps the digestive juices to act.</b></p> <p><b>SET C2</b>  The small intestine receives secretions from a reddish brown gland called A. It secretes a juice called B into the small intestine. Identify A and B and mention the function of B in the digestive process.  <b>Ans: A- Liver</b>  <b>B- Bile juice</b>  <b>Function of B- The bile plays an important role in the digestion of fats.</b></p>	<p><b>3</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p>										

9	9	<p><b>Read the given passage and answer the questions related to the passage and other related concepts:</b>  All organisms need food, water and oxygen for survival. They need to transport all these to various parts of their body. Further, animals need to transport wastes to parts from where they can be removed. These functions are performed by the circulatory system in human beings. It has three major components: Blood, Blood vessels, and Heart. Blood is the fluid required for transportation of substances. It flows in pipe-like structures called blood vessels. Blood vessels can be majorly classified into Arteries, Veins, and Capillaries. The heart acts like a pump that continuously pumps blood throughout the body through rhythmic expansion and contraction.</p> <p>(a) What is the function of white blood cells in the body?  (b) In case of a cut or injury, one of the blood cells clot the area to prevent excessive bleeding. Name the type of blood cell involved in this process.  <b>Attempt either (c) or (d)</b>  (c) Give two points of differences between the two types of blood vessels: Arteries and Veins.</p> <p style="text-align: center;">OR</p> <p>(d) How is the heart designed to prevent the mixing of blood rich in oxygen and blood rich in carbon dioxide? (Any two points)</p> <p><b>Ans: (a) White blood cells (WBC) fight against germs that may enter our body.</b>  <b>(b) Platelets</b>  <b>(c)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">ARTERIES</th> <th style="width: 50%; text-align: center;">VEINS</th> </tr> </thead> <tbody> <tr> <td>carry oxygen-rich blood from the heart to all parts of the body.</td> <td>carry carbon dioxide-rich blood from all parts of the body back to the heart.</td> </tr> <tr> <td>The arteries have thick elastic walls.</td> <td>The veins have thin walls.</td> </tr> <tr> <td>Blood flows under high pressure</td> <td>Blood flows under low pressure</td> </tr> </tbody> </table> <p style="text-align: center;">OR</p> <p>(d) -The heart has four chambers. The two upper chambers are called the atria and the two lower chambers are called the ventricles.  -The partition between the chambers helps to avoid mixing up of blood.</p>	ARTERIES	VEINS	carry oxygen-rich blood from the heart to all parts of the body.	carry carbon dioxide-rich blood from all parts of the body back to the heart.	The arteries have thick elastic walls.	The veins have thin walls.	Blood flows under high pressure	Blood flows under low pressure	4
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10	10	<p><b>Attempt either (A) or (B)</b></p> <p>(A) (i) Depict the process of budding in Yeast with the help of a well-labelled diagram only.  (ii) Mention any one advantage of the process of vegetative propagation.  (iii) Identify and Define the process being depicted in the diagram given below.</p>	5								



**Ans:**  
**(i)**

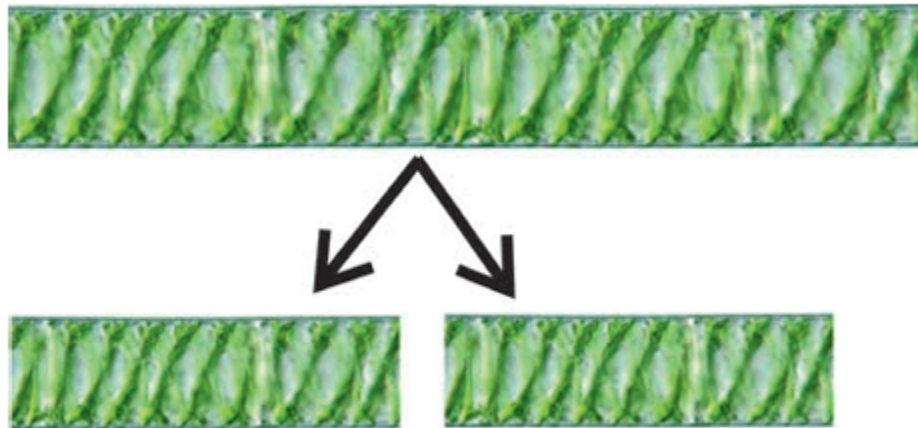


*Fig. 8.5 Reproduction in yeast by budding*

- (ii) -Plants produced by vegetative propagation take less time to grow
- Bear flowers and fruits earlier than those produced from seeds. (Any one)
- (iii) Pollination-The transfer of pollen from the anther to the stigma of a flower is called pollination

**OR**

(B) (i) Identify the process of asexual reproduction shown below and describe it.



2

1

1+1

	<p>(ii) Rohit observed some rose flowers and noticed that they contain both male and female parts i.e. stamen and pistil. What are these types of flowers called? State one more example of a flower where both reproductive parts are observed. Are there any flowers that contain only one of the reproductive parts, i.e. only stamen or pistil? What are they known as? State an example of the same.</p> <p>(iii) Define the term fertilisation.</p> <p><b>Ans: (i) Fragmentation- An alga breaks up into two or more fragments. These fragments or pieces grow into new individuals</b></p> <p><b>(ii) These are called bisexual flowers. Eg- Mustard, Petunia (Any one)</b> <b>Flowers with only one reproductive part are called unisexual. Eg- Corn, Papaya, Cucumber.</b></p> <p><b>(iii) The process of fusion of male and female gametes (to form a zygote) is called fertilization</b></p>	<p><b>1+1</b></p> <p><b>1+1</b></p> <p><b>1</b></p>
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