



## INDIAN SCHOOL AL WADI AL KABIR

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**PMT EXAMINATION(2024-25)**

**CLASS: VIII**

**Sub: SCIENCE**

**MAX.MARKS: 30**

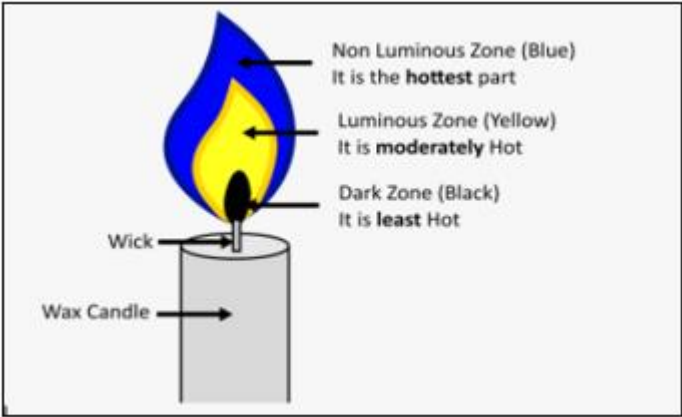
**DATE: 4/06/24**

### Set -I

**TIME: 1 HOUR**

## SECTION A (7X1=7)

1	c) Carbon dioxide is produced during respiration that increases the volume of the dough.	1									
2	b) Sand cuts off the oxygen supply.	1									
3	c) Gaurav's glass plate will have blackish soot deposition but Samik's glass plate will not.	1									
4	b) <table border="1" style="margin-left: 40px;"> <tr> <th>HUMAN</th><th>PLANT</th><th>ANIMAL</th></tr> <tr> <td>Chicken Pox-virus</td><td>Rust of wheat -fungi</td><td>Anthrax-bacterium</td></tr> <tr> <td>Typhoid-bacteria</td><td>Citrus canker-bacteria</td><td>Foot and mouth disease-virus</td></tr> </table>	HUMAN	PLANT	ANIMAL	Chicken Pox-virus	Rust of wheat -fungi	Anthrax-bacterium	Typhoid-bacteria	Citrus canker-bacteria	Foot and mouth disease-virus	1
HUMAN	PLANT	ANIMAL									
Chicken Pox-virus	Rust of wheat -fungi	Anthrax-bacterium									
Typhoid-bacteria	Citrus canker-bacteria	Foot and mouth disease-virus									
5	(i) Both A and R are true and R is the correct explanation of the assertion.	1									
6	(ii) Both A and R are true but R is not the correct explanation of the assertion.	1									
7	(i) Both A and R are true and R is the correct explanation of the assertion.	1									
	<b>SECTION B(3X2=6)</b>										
8	a) Viruses do not grow or reproduce by themselves, which makes them non-living. However, when a virus enters the living cell of an organism, it makes use of the resources in the host cell and starts reproducing. b) Chlamydomonas (Algae)                      Bread mould-Fungi	1  $\frac{1}{2} + \frac{1}{2}$									
9	a) Yes, The heat given by the flame is quickly transferred from the paper cup to the water by conduction. As a result, the ignition temperature of the paper is not reached and hence the paper does not burn. The heat gained by water raises its temperature and finally starts boiling. b) <u>Rapid combustion</u> - Substance burns in a short time. Rapid Combustion requires external heat energy to start. This reaction results in enormous amounts of light and heat energy.  <u>Spontaneous combustion</u> - Type of combustion in which a material suddenly bursts into flames, without the application of any apparent cause. A smaller amount of heat and light energy is released.	1       $\frac{1}{2} + \frac{1}{2}$									
10											

		Draw(1) Labelling (1)
	<b>SECTION C(3X3=9)</b>	
11	<p>(a) The microorganisms decompose dead organic wastes of plants and animals and convert them into simple substances. Other plants and animals again use these substances. Thus, microorganisms can be used to degrade harmful and smelly substances and thereby clean up the environment</p> <p>b) (i) The process of conversion of atmospheric nitrogen into usable forms of nitrogen is called nitrogen fixation.</p> <p>(ii) Certain bacteria and blue-green algae in the soil fix nitrogen from the atmosphere and convert it into nitrogen compounds. Eg. Rhizobium bacteria live in the root nodules of leguminous plants such as beans and peas, with which it has a symbiotic relationship. Sometimes nitrogen gets fixed through the action of lightning.</p>	<p>1</p> <p>1</p> <p>1</p>
12	<p>a) (i) Vaccines are dead or weakened microorganisms that do not harm the body.</p> <p>(ii) Any foreign body that enters our body is called an antigen. In response to this, our body produces proteins that help fight off the antigens called antibodies. When a vaccine is introduced into a healthy person's body, specific antibodies are produced against these killed and weakened microbes. These antibodies remain in the body and protect it from future infection. This way, the body develops immunity against that disease.</p> <p>b) It is important to take antibiotics only on the advice of a qualified doctor. One must finish the course prescribed by the doctor to make the drug more effective. Antibiotics must not be taken unnecessarily because they may kill beneficial bacteria. Antibiotics are, however, not effective against cold and flu as they are caused by viruses.</p>	<p><math>\frac{1}{2}</math> +1½</p> <p>1</p>
13	<p>a) A heap of green leaves contains a lot of moisture in it, hence its ignition temperature is high. Therefore, it does not catch fire easily. But dry leaves have no moisture content in them, hence its ignition temperature is low. Therefore, it catches fire easily.</p>	<p>1</p> <p>1</p>

	<p>b) It should have a high calorific value, Moderate ignition temperature, Moderate rate of combustion, Cheap and easily available, Safe to handle, store, and easy to transport, and Should not cause pollution on burning</p> <p>c) Burning of wood produces a lot of smoke which causes respiratory diseases, to use wood as a fuel, we would have to cut trees. Trees are very essential for any living being. These are provided with many natural substances that help human life.</p>	1
14	<p>a) Substance must be combustible, a medium like oxygen should be available, and a substance must attain its ignition temperature.</p> <p>b) Amount of fuel burnt = 60 kg  Amount of heat produced = 2,40,000 kJ  The calorific value of the fuel = Heat produced / Amount of fuel  <math display="block">= 2,40,000 / 60 = \underline{4,000 \text{ kJ/kg}}</math> <math display="block">\therefore \text{The calorific value of the fuel is } \underline{4,000 \text{ kJ/kg.}}</math></p> <p>c) Carbon dioxide being heavier than oxygen forms a blanket and cuts off the oxygen supply, it brings down the temperature of the fuel, and it does not harm the electrical equipment, It can be stored at high pressure as a liquid in cylinders and when released from cylinders it expands enormously in volume and cools down.</p>	<p>1</p> <p>2</p> <p>2</p>
15	<p>(i) Food preservation is the method of preserving food from being spoiled by microbes.</p> <p>(ii) Sugar reduces the moisture content, inhibiting the growth of bacteria that spoil food.</p> <p>(iii) The milk is heated to about 70°C for 15 to 30 seconds and then suddenly chilled and stored. By doing so, it prevents the growth of microbes. It is called pasteurisation.</p>	<p>1</p> <p>1</p> <p>1</p>