



Date: 31/03/2022 GRADE: VII	CPE - 04 (2021-22) SCIENCE	Max marks: 40 Time: 2 Hours
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Qn. No	SECTION A – CHOOSE THE CORRECT OPTION	Marks				
1.	<p>A student studies that a fuse wire helps in protecting electrical appliances. What role does the fuse wire play in an electrical appliance?</p> <p>A. It reduces the consumption of electricity B. It helps to avoid the passing of large current C. It helps in storage of electricity for further use D. It avoids overheating of an electrical appliance</p>	1				
2.	<p>A teacher visited a vegetable farm with students. The table shows the plants growing in that farm. The teacher pointed out a plant and said that its mode of reproduction is different from the other three plants.</p> <table border="1" style="margin-left: 20px;"> <tr> <td>Tomato plant</td> <td>Potato plant</td> <td>Pumpkin plant</td> <td>cucumber plant</td> </tr> </table> <p>Which plant might have been pointed by the teacher, and why?</p> <p>A. Tomato plant as it reproduces sexually, and other three plants reproduce asexually. B. Pumpkin plant as it reproduces asexually, and other three plants reproduce sexually. C. Potato plant as it reproduces asexually, and other three plants reproduce sexually. D. Cucumber plants as it reproduces sexually, and other three plants reproduce asexually</p>	Tomato plant	Potato plant	Pumpkin plant	cucumber plant	1
Tomato plant	Potato plant	Pumpkin plant	cucumber plant			
3.	<p>A student understands that a hammer in an electric bell strikes the gong when the current passing through the circuit turns the coil into an electromagnet. He also observes that when a switch is held on, the hammer repeatedly strikes the gong. What causes the hammer to continue striking?</p> <p>A. Production of heat in the wires of the circuit B. Melting of the wire due to the flow of electricity C. Repetition of breaking and completion of the circuit</p>	1				

	D. Material of the gong causes vibration in the hammer.					
4	Which of the following, best describes a cyclone? A. Very low air pressure system with very high-speed winds. B. Very high air pressure system with very high-speed winds. C. Very low air pressure system with a long, funnel-like cloud. D. Very high air pressure system with a long, funnel-like cloud	1				
5.	A teacher makes a paper lantern, out of lightweight paper, in the shape of a large balloon. The base of the lantern has a suspended wick in the center. Two students volunteer to hold the lantern vertically, as the teacher lights the wick. Soon, the students felt the lantern is pushing upwards, and eventually it takes flight. Which attribute of matter is responsible for this? A. The light weight paper heated up and rose upwards. B. The air inside the lantern expanded and rose upwards. C. Pressure exerted on the walls of the lantern made it fly. D. Pressure exerted by cold air outside the lantern made it fly	1				
6.	Which of these explains the use of an electric current as a magnet? A. Lighting of an incandescent bulb B. Separating pieces of iron from junk C. Turning off a miniature circuit breaker D. Production of heat in an electric kettle	1				
7.	A potato plant does not produce seeds, but it produces new plants by means of vegetative propagation. The table lists some parts of a potato plant. <table border="1" data-bbox="188 1146 1326 1191"> <tr> <td>Buds</td> <td>Flowers</td> <td>Eyes of potato</td> <td>Cutting of stem</td> </tr> </table> What plant part governs asexual reproduction in a potato plant? A. Flowers B. Buds C. Eyes of potato D. Cutting of stems	Buds	Flowers	Eyes of potato	Cutting of stem	1
Buds	Flowers	Eyes of potato	Cutting of stem			
8.	In cyclone prone coastal towns, while damage to infrastructure may be unavoidable, what steps can be taken by the authorities, in order to minimize the loss of life of inhabitants in these regions? A. Make sure no leakages are present in water supply. B. Install wave-breakers, just off the coast of the town. C. Heed cyclone warnings and call for timely evacuation. D. Assign zones within the city, for all residents to gather.	1				
9.	Which problem is likely to be observed if soil ceases to exist on the earth's surface? A. No shelter for flies such as bees B. Flow of water in river would be reduced C. No shelter for organisms such as earthworms D. Flow of air in the atmosphere would be stopped.	1				

10	<p>Which of these statements explains the benefit of CFL over incandescent bulbs?</p> <p>A. It produces electricity from heat B. It gives heat along with the light C. It consumes a lesser amount of electricity D. It does not require electricity to produce light</p>	1										
11	<p>The table shows the features possessed by seeds of four different plants.</p> <table border="1" data-bbox="188 483 1326 645"> <tr> <td>Plant</td> <td>Drumstick</td> <td>Coconut</td> <td>oak</td> <td>xanthium</td> </tr> <tr> <td>Feature</td> <td>Winged seeds</td> <td>Seeds with fibrous outer coat</td> <td>Hairy seed</td> <td>Spiny seed with hooks</td> </tr> </table> <p>Seeds of which plant have features to disperse better in water than seeds of other plants?</p> <p>A. Seeds of oak plant B. Seeds of coconut plant C. Seeds of drumstick plant D. Seeds of xanthium plant</p>	Plant	Drumstick	Coconut	oak	xanthium	Feature	Winged seeds	Seeds with fibrous outer coat	Hairy seed	Spiny seed with hooks	1
Plant	Drumstick	Coconut	oak	xanthium								
Feature	Winged seeds	Seeds with fibrous outer coat	Hairy seed	Spiny seed with hooks								
12	<p>Which of these activities represents a neutralization reaction in everyday life?</p> <p>A. Meditation before going to bed B. Drinking of water after consumption of food C. Exercise in the morning with an empty stomach D. Consumption of milk of magnesia during indigestion.</p>	1										
13	<p>The table list a few electrical appliances: Which of these appliances converts electricity into heat?</p> <table border="1" data-bbox="188 1267 1326 1350"> <tr> <td>Fan</td> <td>Iron</td> <td>Geyser</td> <td>Cell phone</td> <td>Electric bell</td> <td>Television</td> </tr> </table> <p>A. Fan and Iron B. Iron and Geyser C. Cell phone and Iron D. Electric bell and Television.</p>	Fan	Iron	Geyser	Cell phone	Electric bell	Television	1				
Fan	Iron	Geyser	Cell phone	Electric bell	Television							
14	<p>There are certain regions in the world where cyclones are less likely to occur. These are generally areas surrounded by oceans with colder water currents and high-speed winds. Why do these attributes result in lower possibility of a cyclone?</p> <p>A. Cold Ocean currents make evaporation more difficult B. Cyclones form when hot air rises from warm oceanic surfaces C. Cyclones form when high speed wind and high-pressure regions develop D. High speed wind over colder oceanic regions leads to temperature drop</p>	1										

15	<p>A student studies that soil rich in clay is ideal for paddy. What makes clay soil ideal for the cultivation of paddy?</p> <p>A. The ability of the soil to mould B. Good water retention capability C. The ability to percolate more water D. Good capacity to produce freshwater</p>	1
16	<p>A student took a half-filled test tube with dilute hydrochloric acid and a few drops of phenolphthalein in the solution. As he put a few drops of sodium hydroxide into the solution, it turns to light pink. Further, he put a few extra drops of the acid and observes that the colour disappears. What caused the colour to disappear from the solution?</p> <p>A. The volume of the solution increased B. Turning of the mixture into a neutral solution C. Decrease in the amount of acid in the solution D. An increase in the amount of base in the solution.</p>	1
17	<p>A student wants to conduct an experiment using an electric circuit. He wants to reduce the risk involved in the procedure. Which of these methods should he adopt to reduce the risk involved in an electric circuit?</p> <p>A. Use electricity from mains B. Use an inverter for electricity C. Use a generator for electricity D. Use electric cells for electricity.</p>	1
18	<p>A student studies that the soil is a life support system for most living things. Which of these statements explains the importance of soil?</p> <p>A. birds to fly B. grass to grow C. fishes to swim D. humans to drink.</p>	1
19	<p>Which of the following is the characteristic of a monsoon wind in a coastal region in summers?</p> <p>A. A warm breeze from land to sea. B. A warm breeze from sea to land C. Wind containing water from the sea to land D. wind containing water from the land to sea</p>	1
20	<p>A scientist finds the soil highly basic in nature. She suggests that adding organic matter in the soil could improve the quality of the soil. How does organic matter improve the quality of the soil?</p> <p>A. Releases acid which neutralizes the soil. B. Traps water vapor and increases the water content C. Makes the soil lighter so that it can be transported easily. D. It acts as food for the organisms already present in the soil.</p>	1

SECTION B VERY SHORT ANSWER QUESTIONS		
21	Name any two effects of electric current. Give examples of electric gadgets which produce these effects.	2
22.	Explain the difference between self-pollination and cross-pollination?	2
23	What are indicators? Give examples of natural indicators.	2
24	How is clayey soil useful for plants? Give examples of crops grown in clayey soil.	2
25	Explain why holes are made in hanging banners and hoardings?	2
SECTION C SHORT ANSWER QUESTIONS		
26	What is soil profile? Explain each horizon of the soil profile with the help of a neat labeled diagram.	3
27	What is seed dispersal? Give two examples of seed dispersal.	3
28	What are electromagnets? Draw a circuit diagram showing electromagnetism.	3
29	Draw a neat diagram of a flower and label all its parts.	1