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**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
ANNUAL EXAMINATION 2018-19**



SCIENCE

Code: MZSC12

CLASS: VIII

Time Allotted: 2 ½ Hrs.

00.02.2019

Max .Marks: 80

General Instructions:

1. The question paper comprises of **two Sections, A and B**. You have to attempt both the sections.
2. **All** questions are **compulsory**.
3. **All answers should be written in the answer sheet provided.**

SECTION A

1.Fill in the blanks

a.	The green house gas produced when fuels burn is ----- CO₂	1
b.	If the offspring is an exact copy of the parent it must be ----- ASEXUAL ----- reproduction.	1
c.	Conversion of sugar into alcohol by the yeast is called -- FERMENTATION -----	1
d.	Any substance that causes pollution is a ---- POLLUTANT -----	1
e.	The period during the adolescence when reproductive maturity is achieved is known as--- ----- PUBERTY	1
f.	The frequency of vibration is measured in a unit called ----- HERTZ -----	1

2. Choose the correct answer

a.	The thread like structures in the nucleus is known as – a) nucleolus b) nucleoplasm c) chromosomes d) none of these	1
b.	The ignition temperature of a few substances are given F -120 ⁰ and X - 150 ⁰ Y - 70 ⁰ Z - 110 ⁰ . Which one of them can be termed inflammable? a) F b) Y c) Z d) X	1
c.	If the angle of incidence increases by 5 ⁰ the angle of reflection increases by a) 5⁰ b) 10 ⁰ c) 2.5 ⁰ d) none of these	1
d.	The micro organism that helps in the formation of curd from the milk is a) Hay bacillus b) firmus bacillus c) lysine bacillus d) lacto bacillus	1
e.	This is a non electrolyte a) Dilute acid b) dilute base c) warm salt solution d) cold vegetable oil	1
f.	The male gamete is a) Ovum b) sperm c) gamete d) none of these.	1

3. State TRUE or FALSE

a.	Calorific value is an important criterion for selecting a fuel. T	1
b.	Zygote develops from embryo. F	1
c.	The major components of air are non metals T	1

d.	Organic substances (substances derived from plants and animals) do not cause pollution of water F	1
e.	The body part that responds to the hormone is referred to as the target site. T	1
f.	The loudness of the sound increases when the distance between the mean position and the extreme position of a vibrating body decreases. F	1
4. Give ONE word / term for the following		
a.	A substance that crumbles when hammered and produces a dull low pitch sound when tapped can be called this. NON METAL	1
b.	The animals that give birth to their young ones. VIVIPAROUS ANIMALS	1
c.	Combustion taking place without heating SPONTANEOUS COMBUSTION	1
d.	The electrode where hydrogen evolves during the electrolysis of water. CATHODE	1
e.	The effect of frequency on human ear. PITCH	1
f.	The zone on the retina where there are no sensory cells. BLIND SPOT	1
g.	The glands that secrete hormones. ENDOCRINE GLANDS	1
SECTION B		
Questions 5 to 19 carry 1 mark each		
5	How does the population explosion affect pollution levels? Increase in population can increase the fuel consumption and thus increasing pollution levels. It can also increase the waste generated which can contribute to the land and water pollution	1
6	What are organelles? Living components found in the cytoplasm	1
7	Give any one advantage of LPG. Higher fuel efficiency/ less pollution	1
8	How does the excessive growth of algae (algal bloom) reduce the oxygen levels in water? Absorbs dissolved oxygen from water. Micro organisms acting on the decomposing algae absorb oxygen leading to depletion of oxygen levels.	1
9	Sumit went to an eye specialist with a complaint that he has to keep the book very close to read. What is the defect of his eye? Short sightedness	1
10	A doctor prescribed streptomycin for your friend. What do you understand from this? He is suffering from bacterial infection	1
11	What is the function of the ear drum? It vibrates when sound falls on it and it transmits these vibrations to the inner ear.	1
12	A metal X has to be electroplated on another metal Y. Which of these metals should be connected to the negative terminal of the battery? Metal Y	1
13	An explosion can be seen in outer space but it cannot be heard. Why? Sound needs a medium to travel	1
14	What is metamorphosis? Drastic change of an organism from one stage of its life to another.	1
15	The fire caused by a burning metal is called type D fire. What are the substances produced when the following metals burn? a) sodium b) titanium. Sodium oxide and titanium oxide.	1
16	What is the major difference in the fertilization taking place in man and frog? In frog it is external and in man it is internal.	1

17	After rubbing two objects A and B the object A is found to have positive charge. What will be the charge on B? B is found to repel a charged object C. What is the charge on C? Charge on B is negative. Charge on C is also negative.	1
18	We cannot hear the sound of a metal object vibrating 16 times in one second. Account for this. The frequency is less than 20 Hz/ Infrasonics.	1
19	Copper cannot displace zinc from zinc chloride. Why? Copper is less reactive than zinc.	1
Questions 20 to 29 carry 2 marks each		
20	What are plastids? Distinguish between chloroplast and chlorophyll. Coloured particles found in the plant cell. Chloroplast is a plastid which contains a pigment known as chlorophyll.	2
21	Give reason for the following. i) Wind can extinguish a candle flame. ii) Carbon dioxide is used for extinguishing fire. i) Reduces the temperature below the ignition point of the wax ii) It cuts off oxygen supply being heavier than air	2
22	Give any two differences between typhoid and chicken pox (other than its symptoms) Typhoid – caused by bacteria, spread by water Chicken pox – caused by virus and spread by air or contact.	2
23	What is the role of the following hormones? a) testosterone b) insulin a) Development of sexual characteristics in male b) Regulation of glucose levels in blood	2
24	Why do the metal foils of the electroscope move apart when a charged object is brought in contact with the metal disc/rod? What will happen to the metal foils when the electroscope is earthed? Why? Like charges repel They will collapse as they get discharged.	2
25	Mention two ways to reduce noise pollution in class. Talk softly Timely maintenance of ac and fans	2
26	What causes the charging of clouds? Why does discharge of electricity take place through air during lightning even though the air is an insulator under normal circumstances? Friction between air and condensed droplets of water High voltage makes it a conductor or accumulation of charges	2
27	Give two differences between a metallic conductor and an electrolyte. Metallic conductor – no chemical change, due to flow of electrons, solids Electrolyte – chemical change occurs, due to transport of ions, liquids	2
28	Give two reasons why gold is used for making ornaments. Lustre Malleability	2
29	Distinguish between menarche and menopause. What is menstruation? Menarche –first ever menstruation. menopause – the end of menstrual periods The bleeding due to shedding of uterine lining with blood vessels.	2
Questions 30 to 34 carry 3 marks each		
30	Write three differences between a plant cell and animal cell. Plant cell – cell wall, plastids, large vacuoles Animal cell – no cell wall, no plastids, small vacuoles	3

31	<p>Draw a neat diagram of the arrangement for the electrolysis of water. Label cathode, anode and the electrolyte. Name a substance that can be added to water to increase its conductivity.</p> <p>Diagram 1 mark</p> <p>Three labels – 1.5 marks</p> <p>Acid, base or salt – 0.5 marks</p>	3
32	<p>a) Name a leguminous plant. b) What is the nature of the relationship between leguminous plants and Rhizobium bacteria? c) Rhizobium bacteria play a pivotal role in the supply of proteins to animals and plants. Justify this statement.</p> <p>Name(any example – 0.5 mark</p> <p>Symbiosis - 0.5 mark</p> <p>Supply nitrogen for protein synthesis in plants. Plants supply proteins to all animals – 2 marks</p>	3
33	<p>A substance X was burnt and the product obtained was dissolved in water. The solution thus obtained turned red litmus blue. What can you conclude about the nature of the substance X? Justify your answer.</p> <p>X is metal – 1 mark</p> <p>Metal burns in air to form metal oxide – 1mark</p> <p>Metal oxide when dissolved in water turns basic – 1 mark.</p>	3
34	<p>Write any three precautions to be taken during lightning when you are in the open field.</p> <p>Do not take shelter under tall trees</p> <p>Remove metal objects from the body</p> <p>Squat on the ground</p>	3
Questions 35 carries 5 marks		
35	<p>i) Draw a neat diagram of the human eye showing its parts and label the following parts.</p> <p>a) lens b) iris c) retina d) ciliary muscle</p> <p>ii) What is the function of the pupil?</p> <p>iii) Staring at a very bright source of light like sun is not good for your eyes. Why?</p> <p>Diagram – 1 mark</p> <p>Four labels – 2 marks</p> <p>Opening through which light enters – 1 mark</p> <p>Damages retina – 1 mark</p>	5

