



INDIAN SCHOOL MUSCAT
FIRST TERM EXAM (2017-2018)

SCIENCE – MARKING SCHEME

Name: _____ Roll No: _____ Time: 2 ½ hours

Class: VII Sec: _____ Date: 10/09/2017 Max. Marks: 80

SECTION 1(MARKS-25)
(OBJECTIVE TYPE)

Q I. Fill in the blanks. (6 x 1 mark)

- a. **Leaves** are the food factories of plants .
- b. The **kink** in a clinical thermometer prevents mercury level from falling on its own.
- c. Carbon dioxide turns **lime water** milky.
- d. Breathing involves movement of **diaphragm** and the rib cage.
- e. The temperature, humidity and other factors are called the **elements** of weather.
- f. **World water day** is celebrated on 22 March.

Q II. State TRUE or FALSE(6 x 1 mark)

- a. Leaves other than green do not have chlorophyll. **False**
- b. Ground water is the source of well water. **True**
- c. The process of depositing a layer of copper on iron is called galvanization. **False**
- d. Penguins huddle together to keep themselves cold. **False**
- e. When an electric current flows through a wire, it behaves like a magnet. **True**
- f. Aeration is done to allow growth of aerobic bacteria during treatment of waste water. **True**

Q III. Choose the correct answer (6x 1 mark)

- a. Fishes breathe through
A)lungs B) skin C) spiracles D)gills

b.Which among the following does not belong to the polar region

A) Canada B) **India** C) Greenland D) Siberia

c.The electric appliance where the heating effect is not used is

A) Iron B) **Fan** C) Electric kettle D) Hotplate

d.Which among the following is a parasite

A) **cuscuta** B) Yeast C) mushroom D) pitcher plant

e.The process by which water seeps underground is called

A) **infiltration** B) filtration C) irrigation D) none of the above

f.Which among the following should not be used in drains to minimize clogging

A) Plastic bags B) Paints C) Fats D) **All of the above**

Q.IV.Give one word

(7x 1 mark)

a. The number of times a person breathes in a minute. **Breathing rate**

b.The average weather pattern taken over a long time. **Climate**

c.A current carrying coil of an insulated wire wrapped around a piece of iron. **Electromagnet**

d.A technique used by farmers to use water economically by delivering water directly to the base of the plant. **Drip irrigation**

e. Instrument used to measure the rainfall. **Rain gauge**

f.Combination of two or more cells. **Battery**

g.The upper limit of the layer of soil containing ground water. **Water table**

SECTION-II(MARKS-55)

NOTE: Questions **Q5** to **Q19** carry **one** mark each.
Questions **Q20** to **Q29** carry **two** marks each.
Questions **Q30** to **Q34** carry **three** marks each.
Question **Q35** carries **five** marks.

5. Name the two organisms that live together and share shelter and nutrients in lichens.

Alga and fungus ($\frac{1}{2}$, $\frac{1}{2}$)

6. The top of a roof made of asbestos is painted white. Why?

White colour reflects heat and keeps the house cool (1)

7. Name the conditions necessary for rusting.

Oxygen and moisture ($\frac{1}{2}$, $\frac{1}{2}$)

8. Why does a potted plant die when overwatered?

Air spaces get blocked and roots cannot get oxygen for respiration ($\frac{1}{2}$, $\frac{1}{2}$)

9. Give two characteristics of a typical desert climate.

Hot and dry ($\frac{1}{2}$, $\frac{1}{2}$)

10. What is the special property of wires that are used for making electric fuses?

Low melting point (1)

11. What is rainwater harvesting?

It is a technique used for collecting, storing and using rainwater for landscape irrigation and other uses. (1)

12. How can sludge be decomposed?

By anaerobic bacteria (1)

13. Why is fuse included in electric circuits?

Fuse is a safety device which prevents damages to electric circuits and possible fires. It will blow off and break if the current exceeds the safe limit and wires get overheated. (1)

14. Many tropical animals can camouflage themselves. How does this help them?

To protect from predators/ catch a prey (1)

15. What is sewage?

It is the waste water released from homes, industries, hospitals & offices. It has dissolved and suspended impurities. (1)

16. Give two reasons for over exploitation of underground water.

Any two- industrialization, urbanization, increase in population, agriculture, the increase in per capita water consumption. ($\frac{1}{2}$, $\frac{1}{2}$)

17. Write two factors of conducting wires on which amount of heat produced depends.

Any two- Material, length, thickness. ($\frac{1}{2}$, $\frac{1}{2}$)

18. Mention two onsite sewage disposal systems suitable for rural areas.

Any two –septic tanks, biogas plants, chemical toilets, compost pits ($\frac{1}{2}$, $\frac{1}{2}$)

19. What are aquifers?

Water found between layers of hard rocks below the water table is known as aquifers. (1)

20. Given below are some of the characteristics of animals:

Sticky pads on feet **Tropical Rain forest**, Layer of fat under skin **Polar region**,

Strong tails **Tropical rain forest**, Wide and large paws **Polar region ($\frac{1}{2}$ each)**

For each characteristic indicate whether it is adaptation for tropical rainforests or polar regions.

21. What is the temperature range in a clinical thermometer? Why is it advised to jerk it before reading the body temperature?

35°C to 42 °C, to bring down the mercury level below 35°C (1 ,1)

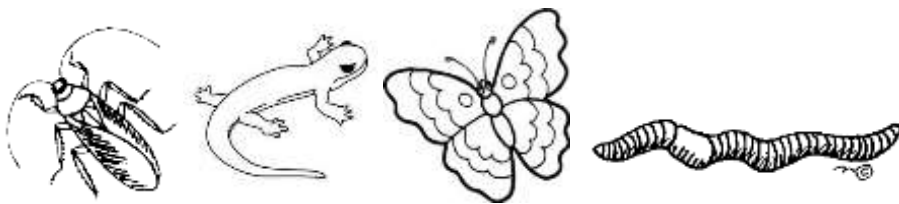
22. Which is the standard test for carbon dioxide gas? Give the word equation.

Lime water turns milky, word equation- Carbon dioxide + lime water ----→ Calcium Carbonate + water (1, 1)

23. Differentiate between a physical and chemical change. Give an example each.

A change in which a substance undergoes a change in its physical properties is a physical change. A change in which one or more new substances are formed is a chemical change. Eg- Tearing of paper (P) burning of paper (C)--- or any other relevant example(1, 1)

24. Identify the breathing organ in the following organisms:



a) **Spiracles** b) **Lungs** c) **Spiracles** d) **Moist skin** ($\frac{1}{2}$ each)

25.a) Mention the use of bar screens in a waste water treatment plant.

Large objects like cans, sticks and packets are removed using bar screens. (1)

b) Why is aeration done in the treatment of waste water?

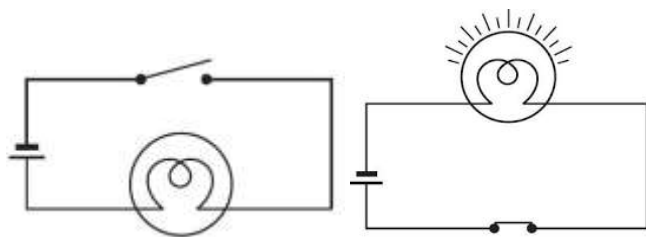
To allow the growth of aerobic bacteria. (1)

26. Look at the examples given below and classify them into conductors and insulators of heat.

Silver- **Conductor**, Air -**Insulator**, Wood-**Insulator**, Mercury-**Conductor** ($\frac{1}{2}$ each)

27. Given below are two circuits a and b. Explain why the bulb glows only in circuit b.

Circuit b-is a closed circuit and current flows in it. circuit a- open circuit and no current flows. (2)



a)

b)

28. Differentiate between autotrophs and heterotrophs. Give an example each.

Organisms that make their own food from simple substances are Autotrophs. Organisms that depend upon other organisms for its food are heterotrophs. Example—green plants (A) Animal (H) –or any other correct example (1, 1)

29. Name four contaminants present in sewage.

Any 4-human faeces, animal waste, oil, urea, inorganic impurities and microorganisms ($\frac{1}{2}$ mark each)

30. a) What is meant by saprotrophic nutrition?

Mode of nutrition in which organisms take in nutrients from dead and decaying matter.(1)

b) Explain how saprotrophs absorb nutrition?

Secrete digestive juice on dead matter, convert it into solution form . ($\frac{1}{2}$, $\frac{1}{2}$)

c) Give two examples of fungi.

Yeast, mushroom ($\frac{1}{2}$, $\frac{1}{2}$)

31. Give reason:

a) A stainless steel spoon becomes hot when left in boiling water.

Conduction of heat in spoon(1)

b) The sun's rays reach the earth even though there is no air in space.

Radiation does not need medium(1)

c) Our hand feels hot when placed above a candle flame than when placed at the side of the flame.

Air gets heated by Convection on the top, no convection at the sides ($\frac{1}{2}$, $\frac{1}{2}$)

32. Explain how the following features help these animals to adapt to their surroundings:

a) Large ears of elephants. **Hear soft sound or to keep its body cool(1)**

b) Layer of fat under the skin of polar bear. **Keeps it warm (1)**

c) Long, large beak of Toucan. **Reach fruits on branches which are weak (1)**

33.a) What is an electromagnet?

A current carrying coil of an insulated wire wrapped around a piece of iron is called an electromagnet (1)

b) Give two uses of electromagnets.

Any two-separating magnetic material from junk, Electric bell, doctors use for removing magnetic materials accidentally fallen in the eyes—or any other correct examples (1,1)

34. A clean iron nail is left in a solution of copper sulphate for an hour.

a) What changes will you observe?

Solution turns from blue to green, brown deposit on nail (1,1)

b) Write the word equation.

Copper sulphate + Iron -----> iron sulphate + copper(1)

When breakdown of glucose happens in the presence of oxygen it is Aerobic respiration and when it happens in the absence of oxygen it is anaerobic respiration.(1)

Glucose (without oxygen) $\xrightarrow{\hspace{2cm}}$ _____ + carbon dioxide + _____

Glucose $\xrightarrow{\text{(with oxygen)}}$ carbon dioxide + _____ + _____

Anaerobic respiration occurs and lactic acid gets accumulated ($\frac{1}{2}$, $\frac{1}{2}$)

Hot water bath or massage (1)

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