

CBSE Sample Paper

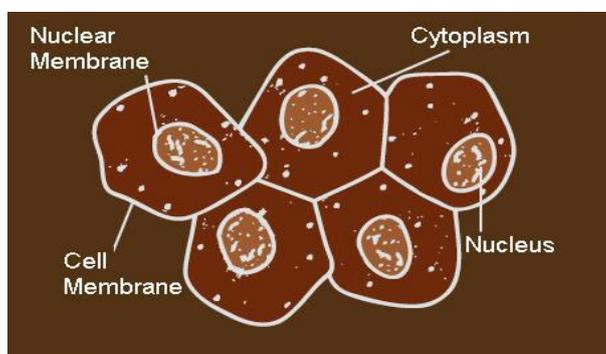
Science Set – B Answer

Class 8

Section – A

1. Charges generated due to rubbing are static in nature as they cannot move by themselves.
2. Glass and Stone.
3. Air or oxygen
4. At the junction of the optic nerve and the retina, there are no sensory cells. So, no vision is possible at this spot and is called blind spot.
5. Other name for voice box in males is Adam's apple.
6. Iron is necessary for the body to build blood.
7. (a) The first step in the process of reproduction is the fusion of a sperm and an ovum. When sperms come in contact with an egg, one of the sperms may fuse with the egg. Such fusion of the egg and the sperm is called fertilisation.

(b) IVF = *In Vitro* Fertilisation
8. When an electric current is passed through the copper sulphate solution, copper sulphate dissociates into copper and sulphate.
9. The Sun is a huge hot celestial body having its own light. It emits heat and light like a star. So we classify the Sun as a star.
10. Greenhouse effect.
- 11.

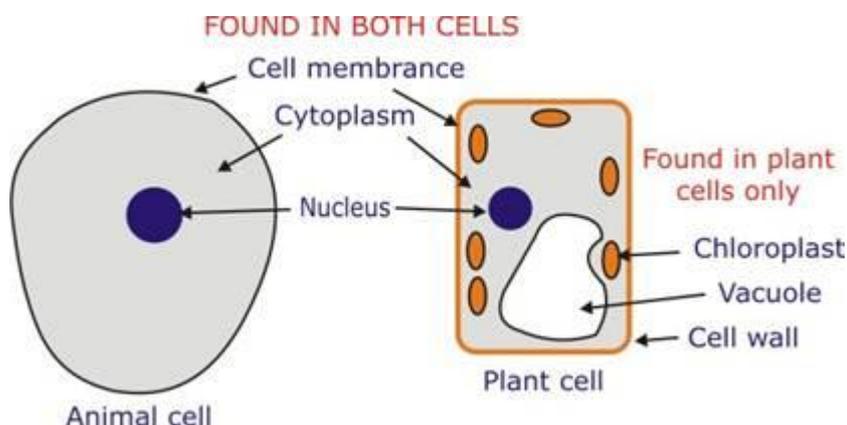


12. When a burning charcoal piece is covered with a glass jar, the oxygen supply is cut off. Due to the absence of oxygen (air) inside the jar, the fire gets extinguished.
13. The splitting of white light into seven colours on passing through a transparent medium, like a glass prism is called dispersion of light.
14. Endocrine glands do not have ducts. These secrete their secretions called hormones directly into the bloodstream. Hence these are called ductless glands. The two examples of endocrine glands are pituitary gland and thyroid gland.
15. (a) Sexual reproduction can be defined as the reproduction beginning from the fusion of male and female gametes.
(b) An individual is formed from a zygote which is a result of fusion of sperm from father and ovum from mother. Hence it inherits some characteristics of father and some of mother.
16. When an electric current is passed through a wire, the current carrying wire behaves like a magnet. When a magnetic compass is brought near it, the needle shows deflection. This effect is called magnetic effect of electric current.
17. Solid sodium chloride does not conduct electricity because the particles (ions) are held together by strong forces of electrostatic attraction. In molten state the ions become free and move to conduct electricity, since on heating the bonds between ions become weak.
18. Light Year: It is the distance traversed by light in vacuum in one year.
Value of one light year in km:
- Distance = speed x time
- So, One light year = speed of light in vacuum x time of one year(in seconds)
= $[3.0 \times 10^8 \text{ m/s}] \times [365 \times 24 \times 60 \times 60] \text{ s}$
= $9.46 \times 10^{15} \text{ m}$
= $9.46 \times 10^{12} \text{ Km}$
19. The absorption of solar energy by the gases like carbon dioxide, methane in the atmosphere, is known as Greenhouse effect. Greenhouse gases warm the atmosphere by efficiently absorbing thermal infrared radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds.
20. The contamination of water by harmful and undesirable substances is known as water pollution.

Examples of water pollutants are sewage and toxic chemicals.

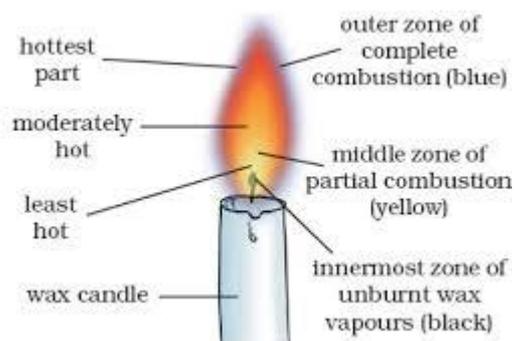
21. The earth's lithosphere is fragmented into many pieces. Each fragment is called a plate, also called tectonic plate. These plates are in continuous motion i.e. they float over hot magma. When a plate goes under another due to collision or they brush past one another, then the disturbance is caused in the earth's crust which is felt as earthquake on the surface of earth. An intensity of an earthquake is measured on the Richter scale.

22.



23. The three zones of a flame are dark zone, luminous zone and non-luminous zone.

Different Zones of a Candle flame



24. a. Spontaneous combustion-The combustion in which a material suddenly bursts into flames without any visible cause is known as spontaneous combustion e.g. spontaneous fires of forests occur due to the heat of the sun or due to lightning strike.

b. Rapid combustion- The combustion in which a material burns rapidly and produces heat and light is called as rapid combustion e.g. phosphorus burns in air readily at room temperature.

- 25.** Our eyes are the most important and wonderful gift nature has provided to us. Eyes serves us for whole life so proper care and protection of them is important.
- (i) We should wash our eyes at least twice a day with clean cold water.
 - (ii) We should not use too bright or too dim light while reading.
 - (iii) We should not read in a moving bus or a car.
 - (iv) At the event of an injury or any other problem to the eyes we must consult a doctor. Self-treatment could be dangerous to our eyes.

- 26.** Their functions are as follows:

- (a) Optic nerves: Its function is to carry optical messages (visual messages) to brain.
- (b) Retina: Its function is to receive the optical image of the object and convert it to optical pulses. These pulses are then send to the brain through optic nerve.
- (c) Cornea: Its function is to acts as a window to world i.e., to allow the light to enter in the eyeball.

- 27.** In females, one ovum matures in a month and is released in the oviduct. During this period, the wall of the uterus becomes thick. In case, ovum is not fertilized, the thickened lining of the uterus along with its blood vessels shed off. This causes bleeding in women which is known as menstruation.

- 28.** ..

Development in frogs	Development in humans
It takes place outside the body of the female.	It takes place inside the body of the female.
Stages in the development are egg, larva and adult.	Stages in the development are foetus, young one and adult.
The young one is different from the adult.	The young one is similar to the adult.

- 29.** The necessary conditions to ensure a smooth and firm deposit are

- 1. a direct current should be used.
- 2. a small current should be applied for a longer time.
- 3. the surface of the article should be free from dirt like oil or grease.
- 4. appropriate temperature should be maintained during electrolysis.

- 30.** The various causes of air pollution are:

- (i) Smoke and dust due to fire in forests or volcanic eruptions.
- (ii) Smoke and poisonous gases emitted by automobile exhaust.
- (iii) Smoke and poisonous gases emitted by power plants and produced by burning of fossil fuels.

- 31.** (i) Solar System: Solar system consists of the sun, the planets, their satellites, comets, meteors and asteroids. The sun is the centre of solar system.
 (ii) In the solar system,
 (a) The largest planet is Jupiter
 (b) The smallest planet is Mercury
 (c) The brightest planet is Venus
 (d) The planet having largest number of natural satellites is Saturn (Shani) (30 Satellites).

Or,

- a) Prominent stars in Ursa major



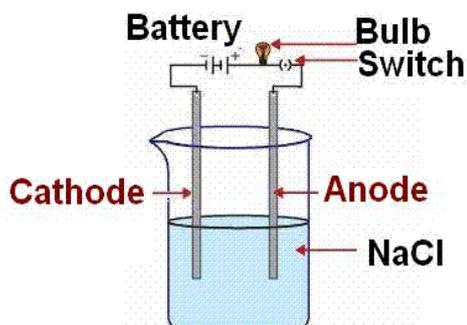
- (b) Prominent stars in Orion



- 32.** Electrolysis can be used for the extraction of metals from their ores, refining certain metals such as copper and zinc. It is also used for the manufacture of chlorine and in submarines. Oxygen produced by the electrolysis of water is used for breathing and electroplating many things we use everyday.

Or,

- (i) Anode and cathode.



(ii) (a) No, it will not glow.

In solid state the free particles (ions) are held together by strong forces of electrostatic attraction.

(b) Yes, it will glow.

In molten state it conduct electricity because the temperature required to melt compound weakens the bond between ions and ions become free to move.

(c) Yes, it will glow.

In aqueous state conduct electricity because dielectric effect of water weakens the bond between ions and ions become free to move.

33. Air pollution can be controlled with the help of following measures-

- i) Use of CNG and unleaded petrol instead of leaded petrol and diesel in automobiles can reduce air pollution.
- ii) Use of alternative fuels like solar energy, wind energy and hydropower instead of fossil fuels can reduce air pollution.
- iii) We should plant trees and nurture the ones already present.
- iv) We should not burn crackers on Diwali or on other celebrations.
- v) Instead of burning dry leaves, they should be put in a compost pit to make manure.

Or,

The various sources of water pollution are as follows-

- i) Sewage and domestic wastes -It includes human excreta, soaps and detergents etc. The sewage from homes are collected and disposed off in rivers nearby. This untreated sewage is the prominent cause of water pollution.
- ii) Human activities- People bath and wash their clothes on banks of rivers. This makes water polluted.
- iii) Industrial and Agricultural discharges- Toxic chemicals (like cyanides, acids, lead etc.) from industries are discharged directly into rivers or streams. The pesticides, fertilizers, insecticides which are used in agriculture are dissolved in water and washed into water bodies from the fields.
- iv) Religious Rituals-Dispersion of Statues of God and Goddess, dead bodies and remains of dead bodies in rivers is causing pollution of water.

v) Thermal pollutants -Nuclear and thermal power plants discharge their unutilized heat into nearby flowing water. It raises the temperature of the water body and this water is dangerous to the life of water animals and plants.

- 34.** (a) Cloning
(b) Dolly (a shee
(c) Dr. Ian Wilmut
(d) Test-tube babies
(e) Binary fission

Or,

Budding is a type of asexual reproduction. In this process, a small bulb-like projection called a bud develops on the body of the organism. The bud gradually grows and gets detached from the parent organism and forms a new organism. It takes place in hydra and yeast.

Section - B

- 35.** a poor conductor of electricity and heat.
36. 8 minutes 20 seconds.
37. moving.
38. ostrich's egg.
39. Shreya.
40. can melt only on passage of electric current of high voltage.
41. oily secretion
42. HIV.
43. carbon monoxide gas.
44. asthma.