



BK BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL
MID-TERM EXAMINATION 2023-24



Class : VIII
Date : 20/10/23

MARKING SCHEME (SCIENCE)

Duration: 3 Hrs
Max. Marks: 80

Questions

1. (a) Orlon fibres
2. (c) Blended fibre
3. (d) Ethyne units
4. (a) Rayon
5. (b) Metalloids
6. (b) Lignite
7. (a) Petroleum gas
8. Removal of unwanted plants is _____

a. weeding b. pruning c. breeding d. none of these

9. _____ is modern way of irrigation

a. sprinkler system b. rahat c. dhekli d. none of these

10. _____ is same type of plants grown on a large scale.

a. crop b. vegetation c. plantation d. all of these

11. _____ is butterfly shaped located in throat region.

a. Thyroid gland b. Pituitary gland c. Adrenal gland d. all of these.

12. _____ is 6 inches long, across the abdomen. Divided into 4 parts.

a. Pancreas b. Pituitary gland c. Adrenal gland d. all of these.

13. _____ is on the top of the kidney like a hat.

a. Pancreas b. Pituitary gland **c. Adrenal gland** d. all of these.

14. (c) Pressure will decrease

15. (a) Ball bearing

16. **(c)** Assertion is correct statement but reason is wrong statement.

17. (a) Both A and R are true, and R is the correct explanation of A.

18. **Assertion:** Sperms are produced in testes.

Reasoning: Testosterone hormone is produced in testes and help in production of sperms.

Ans: (a)

19. **Assertion:** A female child consist of XX chromosome .

Reasoning: If an ovum having X chromosome fuses with a sperm having X chromosome then we get a female child .

Ans: (a)

20. **Assertion:** Cholera is bacterial disease.

Reasoning: Cholera is a disease caused by contaminated food or water.

Ans: (a)

21. Classify the following as exhaustible or inexhaustible resources.

2

Exhaustible: Coal, petroleum and ground water

Inexhaustible: air, wind and sunlight.

22. Explain advantages of digging the soil.

Ans: SOIL BECOMES LOOSE.

IT CAN HOLD LOT OF WATER

IT IS AIRY

ROOTS PENETRATE EASILY

MICROBES ARE KILLED AND SOIL IS FERTILE.

OR

What is crop? Explain

Ans: CROP IS SAME TYPE OF PLANTS GROWN ON A LARGE SCALE.

23. Explain reproduction in amoeba with the help of a diagram.

Ans: DIAGRAM

24. How many types of bacteria are there? Explain with the help of an example.

Ans: SPIRAL SHAPED BACTERIA

SPHERE SHAPED BACTERIA

COMMA SHAPED BACTERIA

DIAGRAM OF ALL THE BACTERIAS

25. a. Large size suitcases are fitted with wheels to reduce friction between the wheels and ground as we know that static and friction is more than rolling friction.

b. When the tyres are, worn out, their grooves disappear due to the constant use; this reduces the friction between tyres and road.

26. The number of periods or cycles per second is called frequency. The SI unit for frequency is the hertz (Hz)

Or

Take a rubber string stretch it tightly between two supports. Pluck the string, the string begins to vibrate. Then we will be able to hear some sound, stop the movement of the string. Even the sound also stops. This shows that sound is produced due to vibrations.

27. (a) Displacement reaction is a chemical reaction in which a more reactive element displaces a less reactive element from its compound. 3



(b) Gold, Platinum

28. (a) Poly vinyl chloride 3

b)1) Use alternative packaging 2) Take your own bag when shopping

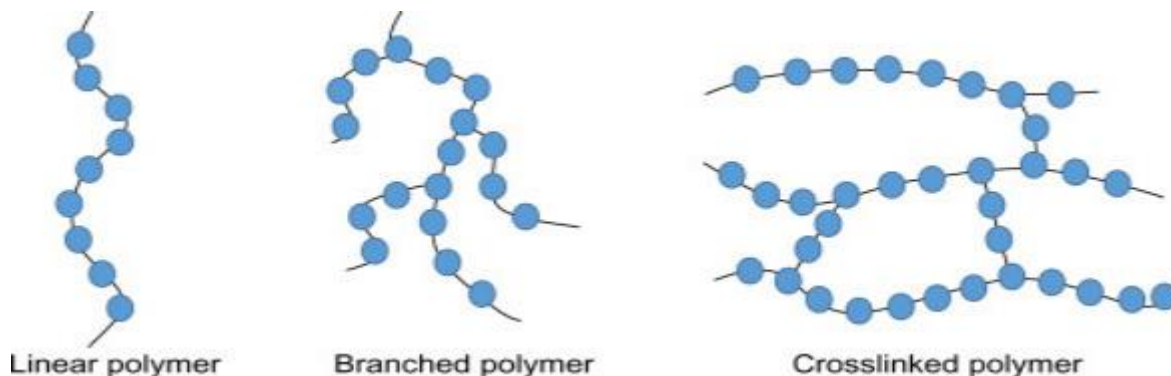
3) Use eco-friendly items

4) Throw plastic on dust bin.

OR

(a) A process of making the monomer molecules react together in a chemical reaction and produce three-dimensional networks or polymer chains is called polymerization.

(b) With the help of suitable diagram show the types of polymerisation.



29. Differentiate between manure and fertilizer.

Ans:

S no	Manure	Fertilizer
1	It is organic	It is man made
2	It is bulky	It is less bulky
3	It is difficult to transport	It is easy to transport
4	It is not rich in NPK	It is rich in NPK
5	It increases the water holding capacity of soil	Over use of it can make soil less fertile.

30. Explain pancreas.

Ans: IT IS SIX INCHES LONG

IT IS ACROSS THE ABDOMEN

BODY IS DIVIDED INTO FOUR PARTS

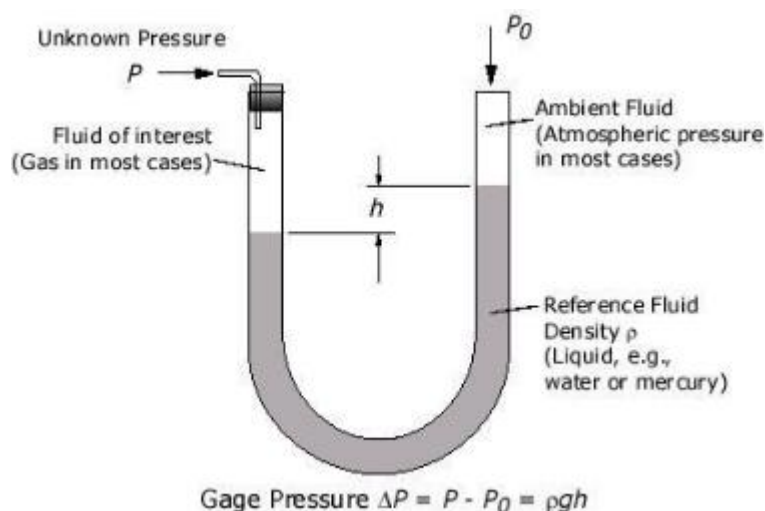
HEAD , NECK , BODY AND TAIL

IT HAS TWO DUCTS

PANCREATIC DUCT AND ACCESSORY DUCT

IT PRODUCES INSULIN HORMONE

31. Manometer is *a device to measure pressures*. A common simple manometer consists of a U shaped tube of glass filled with some liquid. In the manometer, one end connects to a gas-tight seal to test the pressure source. In addition, the other end of the tube is left open to the atmosphere and it will be subjected to the pressure of approximately 1 atmosphere (atm). Besides, the test pressure is greater than the pressure of 1 atm (atmosphere) the liquid in the column will be forced down by the pressure. Furthermore, it will cause the liquid of the reference column to rise by an equal amount.



32. You will need two thick books and 4-5 pencils. 1. Place two books on a table, one on top of the other. Push the book placed on top to slide it over the other book. Now, place some pencils between the two books and again push the book on top. In which case does the book slide more easily? You will observe that the book slides quite easily when pencils are placed between the two books. This shows that rolling friction is less than sliding friction.

33. a. Friction is the force that opposes the motion when the two surfaces in contact move or tend to move with respect to each other. The frictional force increases with an increase in the weight of an object placed on a surface.

b. Nature of the surface in contact i.e whether the surface is smooth or rough: A smooth surface produces less friction than a rough surface because it has fewer irregularities between the surface in contact.

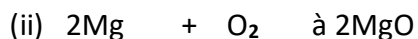
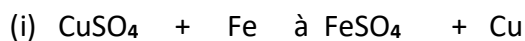
Weight of the object: Force of friction is proportional to the force pressing the surfaces against each other i.e weight of the object.

34. (a) An alloy is a homogenous mixture of two or more metals or a metal and a non-metal in definite proportion. For example: Brass (copper-65% and zinc-35%), Solder (Tin-63%, Lead-37%) 5
(b)

Metal oxides	Non-metal oxides
Basic compounds	Acidic compounds
React with water forming basic solutions	React with water forming acidic solution
Ionic compounds	Covalent compounds
React with acids forming salts	Reacts with bases forming salts
Metal oxides are chemical compounds containing one or more oxygen atoms.	Non-metal oxides are oxides of non-metal elements.

OR

(a) Complete the following equations.



(b) Metals are lustrous, malleable, ductile, good conductors of heat and electricity.

35. Name a viral disease and explain its symptoms, mode of transmission , preventive measures taken and vaccine available to prevent it.

Ans: COVID 19 IS A VIRAL DISEASE

EXPLANATION OF COVID 19 WILL VARY AS PER THE CHILD

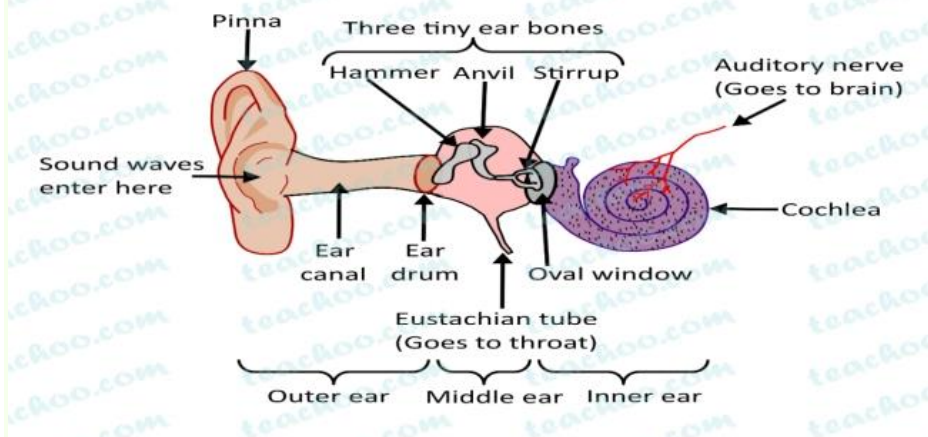
OR

Explain sexual and asexual reproduction with the help of an example.

Ans:S no	Sexual reproduction	Asexual reproduction
1	It involves two parents	It involves one parent
2	Male gamete sperm, female gamete ovum	Does not involve gametes
3	Male and female gametes fuse and zygote is formed	There are no gametes
4	Young one produces are not clones of parents	Young one produces are clones of parents
5	It is slow process	It is fast process

36. Human ear is a sense organ responsible for hearing and body balance. The outer ear receives the sound waves and transmits them down the ear canal to the eardrum. This causes the eardrum to vibrate and sound is produced. Range : 20 Hz – 20,000 Hz

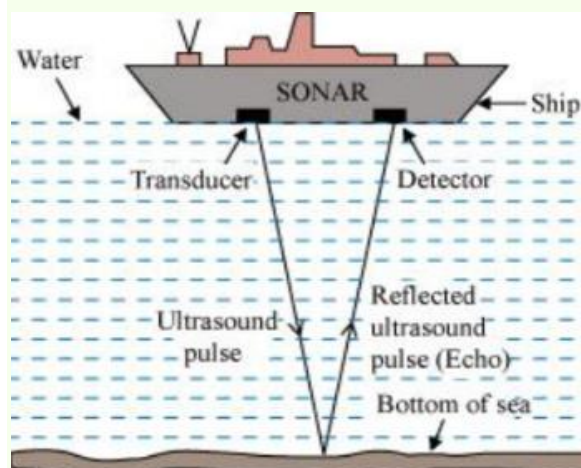
Human Ear Structure



OR

SONAR (Sound navigation and ranging) is a method used in submarines and ships to detect far away objects and obstacles in water. It is based on the principle of reflection of ultrasound waves. It has various applications like echo depth sounding (to find the depth of the sea), detecting enemy submarine etc.

The frequencies of infrared sound are lower than 20 hertz. Ultrasound, like infrared, has frequencies that humans are unable to detect. Infrared has a wide range of industrial applications.



37. Read the passage carefully and answer the following questions.

4

- (i) (c) Limited in quantity
- (ii) (d) All of these
- (iii) Give any two of uses fossil fuels.

It is used as a fuel in homes for cooking and heating purpose

It is used for the manufacture of glass, steel and plastics.

OR

Coal, Petroleum and Natural gas.

38. Female reproductive system consists of -

Ovaries

Its function is egg formation. Oestrogen is the hormone which is helpful in the formation of egg.

Fallopian tube

It is also called as oviduct. Its function is to receive matured egg. Fertilization also takes place in fallopian tube.

Uterus

A sac where baby develops. It is also known as mother's womb. It is the place where baby stays for 9 months during pregnancy.

Cervix

It is a cap of vagina.

Vagina

Vagina is the part that receives sperms.

Egg formation occurs in both ovaries since puberty, but only one egg mature each month and that is from alternate ovaries. The egg maturation take few days and once the egg is formed it is released in fallopian tube. This release is called as ovulation.

- a. Explain female reproductive system with the help of a diagram.

Ans: DIAGRAM

b.Total number of ovary = 2

c.Total number of fallopian tube = 2

d.Total number of uterus = 1

39. a. pascal

b. When we walk on sand, our feet sink into it and it is difficult for us to walk, but a camel can easily walk on it because: (i) The weight of the camel is spread over a large area covered by its feet. (ii) The pressure exerted by the camel's body on the sand is less. Large area, less pressure

c. $P = f/a$

$$p = 700/7 = 100 \text{ pa}$$

or

$$P = f/a$$

$$F = P \times a$$

$$F = 60 \times 2 = 120 \text{ N}$$

***** Best of luck*****