

**INTERNATIONAL INDIAN SCHOOL DAMMAM  
MIDDLE SECTION (GMS/BMS)**

**ANNUAL EXAM REVISION WORKSHEET 2023-24**

**CLASS VIII**

**SUBJECT: GENERAL SCIENCE**

**L-9 REPRODUCTION IN ANIMALS**

**I. Multiple choice questions**

1. The type of asexual reproduction in amoeba:  
a) fragmentation      b) budding      c) binary fission      d) spore formation.
2. External fertilisation and external development take place in.  
a) hen      b) frog      c) elephant      d) human beings
3. When the embryo can be identified with body parts, it is known as  
a) zygote      b) foetus      c) infant      d) egg
4. Which of the following is/are paired structures in Human Reproductive System?  
a) Fallopian tube      b) Testes      c) Ovary      d) All of these
5. The scientist who performed cloning of an animal for the first time.  
a) Alexander Fleming      b) Ian Wilmut      c) William Beaumont      d) Isaac newton
6. The number of nuclei present in a zygote is:  
a) none      b) one      c) two      d) four
7. In human beings, after fertilisation, the structure which gets embedded in the wall of uterus is  
a) ovum      b) embryo      c) foetus      d) zygote
8. Aquatic animals in which fertilisation occurs in water are said to be:  
a) viviparous without fertilisation      b) oviparous with external fertilisation.  
c) viviparous with internal fertilisation      d) oviparous with internal fertilisation.
9. In human beings, the correct sequence of events during reproduction is  
a) gamete formation, fertilisation, zygote, embryo  
b) embryo, zygote, fertilisation, gamete formation  
c) fertilisation, gamete formation, embryo, zygote  
d) gamete formation, fertilisation, embryo, zygote
10. Where does the fusion of male and female gametes generally take place?  
a) Fallopian tube      b) Ovary      c) Uterus      d) None of these
11. Dolly the Sheep was cloned from which type of differentiated adult cell?  
a) Skin cell      b) Mammary gland cell      c) Blood cell      d) Kidney cell
12. During Binary fission  
a) Nucleus divides 1st then Cytoplasm      b) Cytoplasm divides 1st then Nucleus  
c) Nucleus and cytoplasm divide together      d) No such relationship

**II. Name the following:**

1. The two modes by which animals reproduce.
2. The male gametes.

3. The female gametes.
4. Fertilized egg.
5. Animals which lay eggs.
6. Animals which give birth to young ones.
7. The process of transformation of larva into an adult through drastic changes.
8. The first cloned mammal.
9. The bulges observed on the sides of the body of hydra.
10. Another name of oviduct.

**III. Fill in the blanks:**

1. Reproduction resulting from the fusion of male and female gametes is called \_\_\_\_\_
2. The male reproductive organs include, \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_
3. The female reproductive organs are \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_
4. The fusion of egg and sperm is called \_\_\_\_\_
5. \_\_\_\_\_ egg is the largest.
6. Zygote divides repeatedly to give rise to an \_\_\_\_\_.
7. Fertilization that takes place inside the female body is called \_\_\_\_\_
8. Different stages in the life cycle of frog are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
9. Babies born through IVF technique are called \_\_\_\_\_
10. \_\_\_\_\_ is essential for continuation of species.

**IV. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.**

- (a) Both A and R are true and R is the correct explanation of A.  
 (b) Both A and R are true but R is not the correct explanation of A.  
 (c) A is true but R is false.  
 (d) A is false but R is true.

1. Assertion: The mode of reproduction in amoeba is asexual.  
Reason: The type of reproduction in which only a single parent is involved is asexual reproduction.
2. Assertion: The development of a chick takes place inside the eggshell.  
Reason: External fertilization takes place in a hen.

**V. CASE STUDY**

Most animals and plants reproduce by the method of sexual reproduction.

For sexual reproduction to occur two parents- one male and the other female are required. Males and females have different reproductive organs. There are various methods by which fertilization takes place in the living world. The formation of a zygote marks the beginning of a new individual. The zygote undergoes cell division and forms a ball of cells that give rise to the embryo. In animals where fertilization is internal, there are different ways in which the fertilized egg develops into a new organism. Humans and most other mammals give birth to their young ones, some other animals lay

fertilized eggs and keep them warm by sitting on them.

1. Differentiate between zygote and embryo.
2. Why does a zygote have only one nucleus?
3. List the male and female reproductive organs.
4. Distinguish between viviparous and oviparous animals.

### **L:10 REACHING THE AGE OF ADOLESCENCE**

#### **I. Multiple Choice Questions**

1. Structure present in a cell which is responsible for determination of the sex of a baby is  
a) Cytoplasm                      b) Nucleus                      b) Cell membrane                      d) Chromosome
2. A female has  
a) XY chromosomes                      b) YY chromosomes                      c) XX chromosomes                      d) None of these
3. The number of sex chromosomes in human are  
a) Two                      b) three                      c) one                      d) four
4. Production of thyroxine requires  
a) Magnesium                      b) Iodine                      c) Sodium                      d) Bromine
5. The unfertilized egg always has \_\_\_\_\_ chromosome.  
a) X                      b) Y                      c) XY                      d) XX
6. Pancreas is responsible for maintaining  
a) blood pressure                      b) fat metabolism                      c) blood glucose                      d) electrolyte balance

#### **II Name the following.**

1. The master gland.
2. The secretions of endocrine gland
3. The protruding voice box in boys.
4. The thread like structure seen in nucleus during cell division.
5. Hormone secreted by Pituitary gland.
6. The site which responds to hormones.
7. The causative organism of AIDS.
8. The disease caused by less secretion of insulin by pancreas.
9. The mineral which is essential to produce thyroxine hormone.
10. The male hormone.
11. The hormone which controls metamorphosis in a butterfly.
12. The number of chromosomes in every human cell except in gametes.

#### **III. Fill in the blanks.**

1. In humans the number of chromosomes present in a gamete (sperm /ovum) is \_\_\_.
2. The pituitary gland is located below the\_\_\_\_\_.
3. The female hormone is\_\_\_\_\_.
4. The drastic change from larva to adult is called \_\_\_\_\_.
5. \_\_\_\_\_hormone maintains the correct balance of salts in the blood.

6. Goitre is caused due to the deficiency of \_\_\_\_\_ in the body.
7. \_\_\_\_\_ glands are also called ductless glands.
8. The meal that includes all the essential nutrients is called a \_\_\_\_\_.
9. Salivary and sebaceous glands are called \_\_\_\_\_.

**IV. True or False, if false rewrite the statement**

- 1 Some eggs have X type and some have Y type chromosomes.
- 2 There are 46 pairs of chromosomes in a human cell.
- 3 Ovary produces estrogen.
- 4 The chemicals secreted by endocrine glands are called enzymes.

**V. Name the hormone which would be released during the following situations.**

1. A frightened person.
2. Development of caterpillar to moth
3. Development of tadpole to adult.
4. Development of secondary sexual characters in females

**VI. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.**

- (a) Both A and R are true and R is the correct explanation of A.  
(b) Both A and R are true but R is not the correct explanation of A.  
(c) A is true but R is false.  
(d) A is false but R is true.

1. Assertion (A): AIDS is considered to be a syndrome.  
Reason(R): The victim is infected with different pathogens or diseases.
2. Assertion (A): In humans, the sex of the baby is not determined by males.  
Reason(R): A male gamete has either the X chromosome or the Y chromosome.

**VII. CASE STUDY**

1. Smitha's father was not well, she was worried about her father and took him to the doctor. The symptoms were frequent urination especially at night, extreme thirst, blurry vision, numbness or tingling hands or feet, tiredness, sores that heal slowly, and more infections than usual. The doctor asked her father to reduce his sugar intake and gave him some prescription.
  - a) Name the disease he is suffering from.
  - b) Name the hormone responsible for the disease. Mention its function.
  - c) Identify the endocrine gland that secretes it.
  - d) Where is the gland mentioned above located in the human body?

## LESSON 13: SOUND

### **I. Choose the correct option:**

1. Cochlea is a part of-----  
a) Larynx            b) Inner ear            c) Middle ear            d) None of these
2. Out of the following, which one can we hear.  
a) 5Hz            b) 30Hz            c) 50000Hz            d) 1,20000Hz
3. The musical instrument which produces sound by the vibration of the air column.  
a) Tabla            b) Veena            c) Flute            d) Dholak
4. Sound propagates fastest in  
a) Gas            b) Liquid            c) Solid            d) Vacuum
5. Above \_\_\_\_\_dB the sound becomes physically painful.  
a) 60            b) 80            c) 50            d) 70
6. A pendulum oscillates 20 times in 4 seconds, then its time period is  
a) 0.05sec            b) 0.001sec            c) 0.2sec            d) 0.1sec
7. The amplitude determines the \_\_\_\_\_of the sound.  
a) Shrillness            b) loudness            c) Pitch            d) Both a and c
8. Pick the odd one out  
a) Ektara            b) Violin            c) Guitar            d) Ghatam
9. The length of vocal cords in female  
a) 25 mm            b) 20 mm            c) 15 mm            d) 10 mm
10. 1 Hertz is equal to .  
a) 1 vibration/second            b) 1 vibration/minute            c) 60 vibrations/ minute            d) both a and c

### **II. Name the following.**

1. Time taken by a vibrating body to complete one oscillation.
2. The two important properties of a sound.
3. The sound-producing organ in humans.
4. Unit of loudness.
5. The cords stretched across the larynx.
6. The sounds which has a frequency less than 20 HZ
7. Two Animals that can hear sounds that we cannot hear.
8. Maximum displacement of a vibrating body from its mean position.

### **III. Fill in the blanks.**

1. Pitch of the sound is related to its \_\_\_\_\_of vibration.
2. Sound is produced when objects\_\_\_\_\_
3. The number of oscillations in one second is called \_\_\_\_\_
4. Sound cannot travel in \_\_\_\_\_
5. \_\_\_\_\_is measured in Hertz.
6. Loudness of sound is proportional to\_\_\_\_\_of the amplitude of vibration.
7. Sound travels fastest in \_\_\_\_\_and least in \_\_\_\_\_
8. Women are high pitched than men because their vocal cords are 5mm \_\_\_\_\_than men

#### IV. Answer the following:

1. Why is the sound of a baby feeble?
2. A body vibrates 300 times in 6 seconds. Find out the frequency and time period.

#### V. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.

- (a) Both A and R are true and R is the correct explanation of A.  
(b) Both A and R are true but R is not the correct explanation of A.  
(c) A is true but R is false.  
(d) A is false but R is true.

1. ASSERTION: Children and adults have difference in their voices  
REASON: This happens because the frequency of the voice of a child is lower than the adult.
2. ASSERTION: Generally, lightning is seen earlier, and thunder is heard later.  
REASON: Speed of the light is more than the speed of sound.

#### VI. CASE STUDY

Sound is a form of energy that is produced when air molecules vibrate in a particular pattern called waves. Hence the sound is a wave. Sound is produced by vibrating objects. Vibration can be described as to and fro motion of an object. Sound cannot be produced without any vibrations. Sound always requires a medium to travel from the source of its production to the receiver end. Speed of the sound is maximum in solids and minimum in gases.

1. How is sound produced?
2. Name 2 important properties of sound.
3. Why is the speed of sound maximum in solids?
4. Why cannot a sound be heard on the moon?

### L:14-CHEMICAL EFFECTS OF ELECTRIC CURRENT

#### I. MULTIPLE CHOICE QUESTIONS

1. Which one of the following solutions will not conduct electricity?  
(a) lemon juice      (b) vinegar      (c) tap water      (d) vegetable oil
2. The electrode connected to the positive terminal of a cell.  
(a) cathode      (b) anode      (c) electrolyte      (d) none of these
3. An electric current can produce  
(a) heating effect only.      (b) chemical effect only.  
(c) magnetic effect only.      (d) all the above
4. In the electroplating of copper on an iron spoon, copper is connected to  
(a) positive terminal      (b) negative terminal      (c) both of these      (d) None of these
5. Electroplating is based on  
(a) heating effect of electricity      (b) chemical effect of electricity  
(c) physical effect of electricity      (d) magnetic effect of electricity

6. An electrolyte is  
(a) a metal (b) a liquid that conducts current (c) a non-metal (d) None of these
7. Iron objects can be protected by electroplating them with  
(a) Chromium (b) Nickel (c) Zinc (d) All of these
8. When an electric current is passed through water, what is released at the electrodes  
(a) Metal (b) oxygen (c) hydrogen (d) both b and c
9. An electric lamp glows due to  
(a) heating effect (b) magnetic effect  
(c) chemical effect (d) physical effect
10. When electric current is passed through a conducting solution, there is a change of colour of the solution. This indicates  
(a) the chemical effect of current. (b) the heating effect of current.  
(c) the magnetic effect of current. (d) the lightning effect of current

**II. NAME THE FOLLOWING:**

- a. The method of coating the surface of a metal with a superior metal using electricity.
- b. The electrode which is connected to the negative terminal of a cell.
- c. The gas released at the cathode during the electrolysis of water.
- d. Full form of LED

**III. FILL IN THE BLANKS:**

- a. Electroplating of \_\_\_\_\_ is done on objects like water taps and cycle bells to give them a shiny appearance.
- b. Small amount of a mineral salt present naturally in water makes it a \_\_\_\_\_ of electricity.
- c. In the electrolytic refining of copper, pure copper is made as the \_\_\_\_\_
- d. The metal released in the electrolysis of a salt solution deposits on \_\_\_\_\_
- e. The longer lead of an LED is always connected to the \_\_\_\_\_ terminal of the battery.
- f. If the bulb of an electric tester does not light up at all, the given material is \_\_\_\_\_

**IV. ANSWER THE FOLLOWING:**

- a. Why does salt solution conduct electricity whereas sugar solution doesn't?
- b. What are electrodes?

#### V. MATCH THE FOLLOWING:

Column 1	Column
1. Closed path	(a) Good conductor
2. LED	(b) Deflection of compass
3. Carbon rod	(c) Positively charged ion
4. Galvanisation	(d) Poor conductor of electricity
5. Distilled water	(e) Coating with zinc
6. Salt solution	(f) Electrodes
7. Cation	(g) Light emitting diodes
8. Magnetic effect of current	(h) Electric circuit
9. Chromium	(i) Negatively charged ion
10. Anion	(j) Electroplating

#### VI. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

1. Assertion: Iron is used in the making of bridges and automobiles  
Reason: A coating of Zinc is deposited on iron to protect it from rusting.
2. Assertion: Distilled water is not a good conductor of electricity.  
Reason: Distilled water does not contain any salts.

#### VII. CASE STUDY

Electrical conductivity is the measure of the ability of a substance to carry electric current. Metals like copper, aluminium etc are good conductors of electricity. Liquids which conduct electricity (electrolytes) are generally solutions of acids, bases, and salts. Their molecules ionize into positively and negatively charged ions. We use LED and magnetic compass to test the conductivity of liquids. Some compounds such as glucose and oil dissolved in water do not form ions and cannot conduct electricity. Such compounds are called non-electrolytes.

- 1) \_\_\_\_\_ is not a good conductor of electricity.  
a) Vinegar      b) Tap water      c) mustard oil      d) tamarind extract.
- 2) How can we make distilled water conduct electricity?
- 3) Define electrolytes. Give 2 examples.
- 4) Name any two devices which can detect weak electric current.



## L 15 - SOME NATURAL PHENOMENA

### I. Choose the correct answer:

1. Two objects with like charges will \_\_\_\_\_  
(a) Attract each other                      (b) Repel each other  
(c) Either attract or repel                  (d) Neither attract nor repel
2. Which one of the following cannot be charged easily by friction?  
(a) A copper rod                                  (b) Plastic scale  
(c) An inflated balloon                        (d) A woolen cloth
3. Which is the sure test of charge on a body?  
(a) Lightning                      (b) Combination                  (c) Repulsion                      (d) Insulation
4. Lightning occurs due to  
(a) Wind                      (b) Rain                                  (c) Electric discharge                  (d) Earthquake
5. The magnitude of an earthquake is measured in  
(a) Kelvin scale      (b) Celsius scale                  (c) Decibel scale                      (d) Richter scale
6. The process of transfer of charges from a charged object to the earth is called  
(a) Lightning                  (b) Oscillation                      (c) Earthing                      (d) Charging
7. The point from where the shock waves of an earthquake originate is called  
(a) Epicentre                  (b) Seismic focus                  (c) Focal depth                      (d) Hypocenter
8. The process of electric discharge can occur between  
(a) Two or more clouds                  (b) Clouds and the earth  
(c) Both (a) and (b)                      (d) None of these
9. The epicentre of an earthquake is  
(a) in the core of the earth                  (b) on the surface of the earth  
(c) in the middle of the earth                  (d) none of these

### II. Fill in the blanks with suitable words

1. Lightning is an \_\_\_\_\_ on a huge scale.
2. The electricity generated by rubbing two object is \_\_\_\_\_ electricity.
3. In Richter scale highly destructive Earthquake have magnitude greater than \_\_\_\_
4. \_\_\_\_\_ is an instrument that records seismic waves.
5. \_\_\_\_\_ is the sudden shaking and trembling of the earth.
6. Lightning is always followed by \_\_\_\_\_.
7. \_\_\_\_\_ is caused due to an earthquake under sea.
8. Transfer of charge to the earth is \_\_\_\_\_.
9. Richter scale measure \_\_\_\_\_ of an earthquake.
10. Charges in motion constitute an \_\_\_\_\_.
11. The uppermost layer of the earth is called \_\_\_\_\_.
12. \_\_\_\_\_ can save buildings from destruction due to lightning.

### **III. Name the following**

1. A Simple device used to detect electric charges.
2. The 3 Layers of the earth.
3. The boundaries of the Earth where an earthquake is more likely to occur.
4. The instrument used to measure seismic waves.
5. Two most devastating earthquakes occurred in India.
6. Shockwaves generated by an Earthquake.
7. The scientist who first established the relationship between lightning and spark.
8. The agency responsible for making quake - proof houses.

### **IV. Answer the following**

1. A charged body loses its charge if we touch it with our hand. Why?
2. Sometimes, a crackling sound is heard while taking off a sweater during winter. Give reason.
3. Houses in Seismic zones are made up of mud and timber. Give reason.

### **V. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.**

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

**(b) Both A and R are true but R is not the correct explanation of A.**

**(c) A is true but R is false.**

**(d) A is false but R is true.**

1. Assertion: Conductors cannot be charged easily by rubbing.  
Reason: Conductors are materials which allow charges to flow through them
2. Assertion: An earthquake is caused by a disturbance deep inside the earth  
Reason: It is not possible to predict when and where the next earthquake might occur.
3. Assertion: A charged balloon repels another charged balloon  
Reason: Similar charges repel each other.

### **VI. CASE STUDY**

The earth's lithosphere is divided into parts called tectonic plates. These plates float over the hot magma below and therefore in relative motion to each other. Sometimes these plates collide or slide over each other. The boundaries of the tectonic plates are the zones where earthquakes are most likely to occur. The intensity of the earthquake is measured by a scale ranging between 0 to 9. This scale is not linear. On this scale, an earthquake with a magnitude 6 has 1000 times more destructive energy than an earthquake of magnitude 4.

1. How are earthquakes caused?
2. Define seismic or fault zones.
3. What is meant by epicenter?
4. What is the Richter scale?

## L- 16: LIGHT

### I. Fill in the blanks:

1. The ray of light that gets reflected from a surface is called\_\_\_\_\_.
2. The size of the pupil becomes\_\_\_\_\_when you see in dim light.
3. \_\_\_\_\_is the part of eye which contains several nerve cells.
4. Night birds have\_\_\_\_\_cones than rods in their eyes.
5. When two mirrors are kept parallel to each other the number of images is \_\_\_\_\_.
6. Kaleidoscope works on the principle of\_\_\_\_\_.
7. The splitting of white light into its constituent colours is called\_\_\_\_\_.
8. The distance of the object and the\_\_\_\_\_is same from the plane mirror.
9. The coloured part of eye is\_\_\_\_\_.
10. \_\_\_\_\_is a light sensitive screen in the eye.
11. \_\_\_\_\_carries impulses from the eyes to the brain.
12. \_\_\_\_\_is a device which works on the reflection of reflected light.
13. \_\_\_\_\_is the point inside the human eye where no vision is possible.
14. The most comfortable distance at which one can read with a normal eye is approximately \_\_\_\_\_
15. Droplets of water split sunlight to form a spectrum known as\_\_\_\_\_.
16. In a Kaleidoscope, the mirrors make an angle of\_\_\_\_\_with each other.
17. A person 1.5 m Infront of a plane mirror seems to be\_\_\_\_\_m away from his image.
18. The impression of an image persists in the retina for about \_\_\_\_\_of a second.

### II. Multiple Choice Questions:

1. Which part of the eye converges light rays to form the image  
a) Cornea      b) Retina      c) Eye lens      d) Pupil
2. The angle of incidence is equal to the angle of reflection  
a) Always      b). Sometimes      c) Under special conditions      d) Never
- 3 Image formed by a plane mirror is:  
a) virtual, behind the mirror and enlarged.  
b) virtual, behind the mirror and of the same size as the object.  
c) real at the surface of the mirror and enlarged.  
d) real, behind the mirror and of the same size as the object
- 4 The perpendicular drawn to the reflecting surface at the point of incidence is called  
a) Normal      b) Incident ray      c) Reflected ray      d) None of these

5. If two plane mirrors are inclined at an angle of  $40^\circ$ , number of images formed will be  
 a) 7      b) 8      c) 9      d) 5
6. The angle between the incident ray and reflected ray is  $100^\circ$ . What is the angle of incidence?  
 a)  $100^\circ$       b)  $90^\circ$       c)  $50^\circ$       d)  $45^\circ$

**III. Match the following:**

Column A	Column B
i. Cornea	a. Sensitive to dim light
ii. Cloudy lens	b. Sensitive to bright light
iii. Rods	c. Multiple reflection
iv. Pupil	d. Diffused reflection
v. Cones	e. Front part of the eye
vi. Blind spot	f. Bouncing back of light
vii. Reflection	g. No sensory cells
viii. Rainbow	h. Small opening in the iris
ix. Kaleidoscope	i. Cataract
x. Rough surface	j. Dispersion of light

**IV. State whether the following statements are true/false. If false, correct the statements.**

1. Deficiency of vitamin B causes night blindness.
2. Normal makes  $60^\circ$  angle with the reflecting surface.
3. Ciliary muscles change the shape of the lens in the eye.
4. The type of lens present in our eyes is concave lens.
5. Cones are sensitive to dark light.

**V. The questions below consist of an Assertion and a Reason. Use the following key to choose the appropriate answer.**

- (a) Both A and R are true and R is the correct explanation of A.  
 (b) Both A and R are true but R is not the correct explanation of A.  
 (c) A is true but R is false.  
 (d) A is false but R is true.

1. Assertion: In dim light the size of the pupil reduces.  
 Reason: Iris controls the amount of light entering the eye

2. Assertion: Human eye has a convex lens  
Reason: Convex lens converges the light rays falling on it.
3. Assertion: We interpret a sequence of still images in quick succession as a moving picture.  
Reason: The impression of an image persists in our retina for  $1/16^{\text{th}}$  of a second (Persistence of vision)

#### **VI. CASE STUDY**

Nerve cells called photoreceptors in the eye play a vital role in night vision and affect how the eye sees colour. Photoreceptor cells are in the retina, which is the light-sensitive layer at the back of the eye. There are two kinds of photoreceptor cells: cones and rods. Each type of photoreceptor works to convert different levels of light into electrical signals that are then sent to the brain to form a visual representation. Cones work best in bright light conditions and detect colours. Rods are sensitive to low-light levels. Rods help in night vision. Lack of vitamin A in food is responsible for many eye diseases. We should therefore include food components rich in vitamin A.

- 1) Name the two types of photoreceptors in the retina.
  - 2) Why does an owl have large number of rods?
  - 3) Name the disease caused by the deficiency of vitamin A
  - 4) Name any 4 foods rich in vitamin A
-