

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTIONS (BMS/GMS)
ANNUAL EXAM REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

L-5 Acids, Bases, and Salts

I. Tick the correct option.

1. Which of the following is an acid-base indicator?
 (a) Vinegar (b) Lime water (c) Turmeric (d) Baking soda
2. The colour change of blue litmus in acidic solution is ____.
 (a) Blue (b) Purple (c) Red (d) Pink
3. Sodium bicarbonate is commonly called as _____.
 (a) Slaked lime (b) Lime water (c) Washing soda (d) Baking soda
4. The chemical name of calamine solution is _____.
 (a) Calcium carbonate (b) Zinc carbonate (c) Magnesium carbonate (d) Sodium carbonate
5. Which of the following can be used to neutralise an acid?
 (a) water (b) Sodium hydroxide (c) vinegar (d) common salt

II. Fill in the blanks.

1. Litmus is extracted from _____
2. China rose indicator turns _____ solution to dark pink and _____ solution to green.
3. _____ Acid is present in tamarind and grapes.
4. Ant's sting has _____ acid and can be treated with _____ solution.
5. _____ can cause damage to historical monuments, buildings, plants, and animals.

III. Name the following.

1. It gives a pink colour when the solution is basic but remains colourless when the solution is acidic _
2. The base used in window cleaner –
3. The chemical name of Lime water –
4. Any two acids present in acid rain –
5. Colorless and synthetic indicator used in laboratory –
6. The base present in soap –
7. Substances which are neither acidic nor basic –
8. Three naturally occurring indicators –
9. Substances which are bitter in taste and feel soapy on touching –
10. Substances which are sour in taste –

IV. Complete the table with the appropriate words given below:

(formic acid, ascorbic acid, citric acid, curd, vinegar, spinach, grapes)

Name of acid	Found in
1. Acetic acid	
2.	Ant's sting
3. Oxalic acid	
4. Tartaric acid	
5.	Citrus fruits such as oranges, lemons, etc.
6. Lactic acid	
7.	Amla, citrus fruits

**INTERNATIONAL INDIAN SCHOOL, DAMMAM
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ANNUAL REVISION WORKSHEET 2023-24
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V. Read the following statements carefully and choose the correct answer:

1. **Assertion:** Blue litmus paper turns into red colour in acidic solution and red litmus paper turns blue in basic solution.
Reason: The substances which are used to test whether the given substance is acidic or basic are called indicators.
- a) Assertion and reason both are correct statements and reason is the correct explanation for assertion.
 - b) Assertion is a correct statement, but reason is not correct explanation for assertion.
 - c) Assertion is correct statement, but reason is wrong statement.
 - d) Assertion and Reason both are wrong statements.
2. **Assertion: Ammonia is found in many household products, such as window cleaners.**
Reason: Ammonia is acidic in nature.
- a) Assertion and reason both are correct statements and reason is the correct explanation for assertion.
 - b) Assertion is a correct statement, but reason is not correct explanation for assertion.
 - c) Assertion is correct statement, but reason is wrong statement.
 - d) Assertion and Reason both are wrong statements
3. **Assertion: Lemon juice turns red litmus to blue.**
Reason: In Acidic solution red litmus paper turns Blue while the blue litmus paper remains unchanged.
- a) Assertion and reason both are correct statements and reason is the correct explanation for assertion.
 - b) Assertion is a correct statement, but reason is not correct explanation for assertion.
 - c) Assertion is correct statement, but reason is wrong statement.
 - d) Assertion and Reason both are wrong statements
4. **Assertion: When an ant bites, it injects the acidic liquid into the skin.**
Reason: Ant stings have Formic acid.
- a) Assertion and reason both are correct statements and reason is the correct explanation for assertion.
 - b) Assertion is a correct statement, but reason is not correct explanation for assertion.
 - c) Assertion is correct statement, but reason is wrong statement.
 - d) Assertion and Reason both are wrong statements

Case Study Questions

Rani noticed that a local factory was discharging its liquid waste into the river. She visited the factory and advised the people working there to treat the factory waste before discharging into the water body.

1. Products of a neutralization reaction are always....
- a) An acid and a base
 - b) An acid and a salt
 - c) A salt and water
 - d) A salt and a base

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

2. Which one of the following is a base?
- a) Litmus
 - b) Calcium hydroxide
 - c) Vinegar
 - d) Water
3. Neutralization reaction is a chemical change that cannot be reversed (True / False)
4. What is neutralization reaction?
5. What remedy do you think Rani would have suggested to factory people?

L 6 PHYSICAL AND CHEMICAL CHANGES

I. FILL IN THE BLANKS

1. _____ & _____ are the two kinds of general changes that take place in our surroundings.
2. On burning Magnesium ribbon the ash formed is _____.
3. Souring of milk is a _____.
4. The turning of limewater milky is the standard test of _____.
5. When Magnesium oxide is dissolved in water _____ is formed.
6. The reaction of Copper Sulphate with Iron produces _____.
7. _____ absorbs ultra violet radiations and breakdown to Oxygen.

II. NAME THE FOLLOWING

1. The gas produced when baking soda is added to vinegar.
2. The natural protective shield to human beings against radiation.
3. The mixture of Chromium, Nickel, Manganese, Carbon and Iron.
4. Another name for chemical change.
5. Common name of Sodium Hydrogen Carbonate.
6. A change in which one or more new substances are formed.
7. A brownish film acquired on Iron when kept open.

III. MULTIPLE CHOICE QUESTIONS

1. The process of depositing a layer of zinc on Iron is called _____.
(Galvanisation, Rusting, Crystallisation)
2. All new substances are formed as a result of _____.
(Physical change, Chemical change, None of these)
3. _____ is always accompanied by the production of heat.
(Rusting, Physical change, Burning)

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

4. When CO_2 is passed through lime water _____ is formed.
 (Calcium hydroxide, Calcium Carbonate, Sodium Carbonate)
5. The properties such as shape, size, colour and state of a substance are its _____.
 (Physical, Chemical, None of these)
6. _____ change is irreversible and permanent.
 (Physical, Chemical, Both)
7. _____ affects Iron articles and slowly destroys them.
 (Galvanisation, Rusting, Burning)
8. The process of forming large crystals of pure substances from solution.
 (Galvanisation, Rusting, Crystallisation)

IV. WRITE TRUE OR FALSE. IF FALSE CORRECT THE STATEMENT

1. Rust is iron.
2. Magnesium Hydroxide changes blue litmus red.
3. Iron Sulphate solution is blue in colour.
4. Explosion of firework is a physical change.
5. Crystallisation is a chemical change.

V. GIVE THE CHEMICAL NAME OF

- | | |
|----------------|---------------|
| 1. Baking soda | 3. Vinegar |
| 2. Rust | 4. Lime water |

VI. GIVE THE CHEMICAL FORMULA OF

- | | |
|------------------------|---------------|
| 1. Calcium Carbonate | 3. Iron Oxide |
| 2. Magnesium Hydroxide | |

VIII. COMPLETE THE EQUATIONS

1. Magnesium (Mg) + _____ \rightarrow Magnesium Oxide
2. Magnesium Oxide (MgO) + water (H_2O) \rightarrow _____
3. _____ + Iron \rightarrow Iron Sulphate + Copper
4. Vinegar + Baking soda \rightarrow _____ + other substances
5. Carbon dioxide (CO_2) + lime water $\{(\text{CaOH}_2)\}$ \rightarrow _____ + water
6. Iron (Fe) + _____ + water (H_2O) \rightarrow rust (Iron Oxide Fe_2O_3)

IX. CLASSIFY AS PHYSICAL AND CHEMICAL CHANGES

- | | | | |
|------------------------|--------------------------------|---------------------|------------------------|
| 1. Burning of candle | 2. Folding of a cloth | 3. Curdling of milk | 4. Photosynthesis |
| 5. Digestion of food | 6. Stretching of rubber band | 7. Rusting of iron | 8. Rolling of chapatti |
| 9. Moving of furniture | 10. Writing on the black board | | |

INTERNATIONAL INDIAN SCHOOL,DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

X. Assertion Reasoning.

Choose the correct answer from the following options.

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

1. **Assertion (A):** Breaking of a glass tumbler is a chemical change.

Reason (R): When a glass tumbler breaks, the pieces cannot be joined to get back the original plate.

2. **Assertion (A):** The process of burning of paper is a chemical change.

Reason (R):The products formed by burning a paper cannot be converted back to original paper.

3. **Assertion (A):** The rusting of iron can be prevented through galvanization.

Reason (R):The process which converts iron to iron oxide in the presence of moisture and air is called rusting.

4. **Assertion (A):** Crystallisation is an example of chemical change.

Reason (R):Large crystals of copper sulphate can be obtained from copper sulphate powder by the process of crystallization.

5. **Assertion (A):**The Ozone layer protects us from the harmful UV radiation.

Reason (R):The breaking down of Ozone into oxygen is a chemical change.

XI. Case Study: An activity is performed by teacher of class 7. She took a small piece of a thin strip or ribbon of magnesium . After cleaning its tip with sandpaper, the tip is brought near a candle flame. It burns with a brilliant white light.

- 1) Burning of any substance is a/an
 - a) Chemical change
 - b) Physical change
 - c) Irreversible change
 - d) Both chemical and irreversible change
- 2) Magnesium oxide + water =
 - a) None if these
 - b) Magnesium hydroxide
 - c) Magnesium dioxide
 - d) Magnesium trioxide
- 3) Which is an example of a chemical change?
 - a) Melting of wax
 - b) Taking a glass of water and freezing it by placing it in the freezer
 - c) Filling up a balloon with hot air
 - d) A plant collects sunlight and turns it into food
- 4) _____ is a new substance formed on burning of magnesium
- 5) Magnesium hydroxide is an acid
 - a) True
 - b) False

**INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 SUBJECT: GENERAL SCIENCE**

- 6) In a chemical change:
- Energy is either absorbed or given out
 - Energy is always given out
 - Energy is always absorbed
 - Energy change do not occur
- 7) When a new substance is formed with different properties than the original substance the change is called a _____
- Undesirable change
 - Chemical change
 - Desirable change
 - Physical change

L -11 TRANSPORTATION IN PLANTS AND ANIMALS

I. Fill in the blanks

- The rhythmic contraction of the heart followed by its relaxation is called _____
- The _____ and _____ transport, substances in plant.
- _____ are the extremely thin blood vessels which connect arteries to veins
- Platelets play major role in blood _____
- Throbbing movements due to blood flow in arteries are called _____.
- _____ help in preventing the blood from flowing back.
- The lower chambers of the heart are called the _____.
- The sensitive part of the stethoscope is called _____
- _____ side of the heart has oxygen rich blood.
- _____ carries the waste from the body of Hydra.
- The _____ in the kidneys filter the blood.
- Urine consists of _____ percentage of urea.
- In summer, white patches seen on the shirt is due to the presence of _____ in sweat.
- _____ is the excretory product in birds, lizards and snakes.
- The process of filtering blood through artificial kidneys is called _____
- The _____ increases the surface area of the roots for the absorption of water and minerals
- _____ are the blood vessels that carry blood from the heart to various parts of body.
- The human heart beats about _____ times per minute

II. NAME THE FOLLOWING

- The process that generates a force which pulls up water absorbed by the roots from the soil.
- The fluid component of blood
- The red pigment present in RBC
- The major excretory organ in human beings
- The only artery that carries carbon dioxide rich blood.
- The excretory product in fishes

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

7. Seeds of drumstick and maple are carried to long distances by wind because they possess
a) winged seeds b) large and hairy seeds c) long and ridged fruits d) spiny seeds
8. Pollination refers to the
a) transfer of pollen from anther to ovary
b) transfer of male gametes from anther to stigma
c) transfer of pollen from anther to stigma
d) transfer of pollen from anther to ovule
9. Small bulb like projection coming out from the yeast cell is called
a) Bud b) Spore c) Node d) None
10. Propagation by leaf buds takes place in
a) Rose b) Onion c) Potato d) Bryophyllum

II. Name the following

1. Production of new individuals from their parents.
2. The two modes of reproduction
3. The process of fusion of male and female gametes
4. Transfer of pollen grains from anther to stigma of flower.
5. Bulb like projections of yeast cell.
6. Male reproductive part of the flower
7. Female reproductive part of the flower
8. Flower which contain both stamens and pistil

III. Fill in the blanks

1. Production of new individual from the vegetative part of plant is called -----
2. Seed dispersal takes place by means of-----, -----, -----.
3. Ovary develops into ----- and ovules develops into -----
4. A flower that contains only the male reproductive part is called -----
5. The fertilized egg is called ----- and develops into an -----
6. ----- and ----- are examples of seed dispersal by animals.

IV. Match the following.

- | | |
|------------------|----------------|
| 1. Bud | a. Maple |
| 2. Eyes | b. Spirogyra |
| 3. Fragmentation | c. Yeast |
| 4. Wings | d. Bread mould |

**INTERNATIONAL INDIAN SCHOOL,DAMMAM
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ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 SUBJECT: GENERAL SCIENCE**

L 13 Motion and Time

I. FILL IN THE BLANKS

- 1) The basic unit of speed is_____.
- 2) A faster moving object covers more distance in_____time.
- 3) If the speed of an object keeps changing in equal interval of time, while moving along a straight line, its motion is said to be in _____.
- 4) The to and fro motion of an object from the position of rest is called a_____.
- 5) One complete to and fro motion of a pendulum from rest position is called one_____.
- 6) The basic unit of time is_____.
- 7) The metallic ball in pendulum is called _____the pendulum.8.The symbol of all units is written in_____.
- 8) Motion along a curved path is called_.
- 9) The working of a pendulum clock is based on the_____of its pendulum.11.Motion of the hammer of an electric bell is_ motion.

II. ANSWER THE FOLLOWING

- 1) What type of graph is used to represent motion of an object?
- 2) What is the SI unit of distance?
- 3) What is the motion of our hands while running?
- 4) What do you mean by the statement; “car is moving with the speed of 50 Km per hour”?
- 5) Give an example of oscillatory motion.
- 6) A simple pendulum takes 32 s to complete 20 oscillations. What is the time period of the pendulum?
- 7) What are the points that should be kept in mind while choosing scale for drawing graph?

III. NAME THE FOLLOWING

- 1) The device on vehicles to track the distance covered.
- 2) The device used to measure speed.
- 3) An object that shows oscillatory motion.

IV. STATE TRUE OR FALSE

- 1.For a body/ an object in non-uniform motion, the graph is not a straight line.
- 2.Speed = Distance/ Time.
- 3.The time period of a given pendulum is not constant.

INTERNATIONAL INDIAN SCHOOL,DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

V. Classify the following as motion along a straight line, circular or oscillatory motion:

- Motion of our hands while running. : -
- Motion of a horse pulling a cart on a straight road. :-
- Motion of a kid in a merry-go-round. : -
- Motion of a child on a see-saw. : -
- Motion of the hammer of an electric bell.-
- Motion of a train on a straight bridge : -

VI Case Study –

1) A car is moving at a speed of 50 kilometers per hour, which implies that it will cover a distance of 50 kilometers per hour. Vehicles moving in the same direction on the road 50 kilometers in one hour. However, a car seldom moves at a constant speed for one hour. It starts moving slowly and then picks up speed. So, when we say that the car has a speed of 50 kilometers per hour.

1) A bus travels 54 km in 90 minutes. The speed of the bus is

- a) 0.6 m/s
- b) m/s
- c) 10 m/s
- d) 3.6 m/s

2)The distance traveled by the vehicles is recorded by

- a) speedometer
- b) motometer
- c) odometer
- d) monometer

3. An object moving along a straight line with a constant speed is said to be in _____

4. Speed is the total distance covered divided by the total time taken.

- a)True b) False

VII Assertion - Reasoning – Choose the correct answer from the following options.

(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) A- The distance moved by an object in unit time is called its speed.

R – Faster vehicles have higher speeds.

2) A- The speedometer records the speed of the vehicle generally in km/h.

R- The Odometer measures the distance moved by the vehicle in one hour.

3) A- The distance-time graph for the motion of an object moving with a constant speed is not a straight line.

R- If an object moving along a straight line covers equal distance in equal intervals of time it is said to be uniform motion.

**INTERNATIONAL INDIAN SCHOOL,DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 SUBJECT: GENERAL SCIENCE**

- 5) An image which can be obtained on a screen.
- 6) The size of the image being greater than the object.
- 7) Demonstration apparatus to show colour mixing by rotating disc of colour sectors.
- 8) The spherical mirror used by a dentist.
- 9) The band of seven colours seen when white light is split into its different colours.
- 10) A natural phenomenon showing dispersion.

IV. DEFINE

- | | | |
|----------|-------------------------------------|------------------------|
| 1. Light | 2. Rectilinear propagation of light | 3. Reflection of light |
| 4. Prism | 5. Dispersion | 6. Spectrum |
| | | 7. Newton's Disc |

V. ASSERTION- REASONING QUESTIONS

(1) Assertion(A)- When the object is placed very close to the lens, the image is formed is virtual, erect, and magnified.

Reason(R)- This happens because the convex lens can form real and inverted image when the object place very close.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

(2) Assertion (A): Rainbow is an example of the dispersion of sunlight by the water droplets.

Reason (R): Light of shorter wavelength is scattered much more than light of larger wavelength.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

(3) Assertion (A): Virtual image can't be seen by human eye.

Reason (R): Virtual image is formed by diverging rays.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

(4) Assertion (A): When we see an object, the image formed on the retina is real and inverted.

Reason (R): If the magnification of a system is less than one, then the image formed is inverted.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

INTERNATIONAL INDIAN SCHOOL, DAMMAM
MIDDLE SECTION (BMS/GMS)
ANNUAL REVISION WORKSHEET 2023-24
CLASS: 7 **SUBJECT: GENERAL SCIENCE**

(5) Assertion (A): The air bubble shines in water.

Reason (R): Air bubble in water shines due to refraction of light.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

(6) Assertion : During rainbow formation, the light disperses into its seven constituent colours.

Reason (R): Air has lots of suspended dust particles.

- a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
- b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
- c) Assertion is correct statement, but reason is wrong statement.
- d) Assertion is wrong statement, but reason is correct statement.

CASE STUDY

Lenses are transparent and light can pass through them. Lenses are classified as convex lens and concave lens and we can distinguish between these two types of lenses by just touching them. Lenses are widely used in various appliances that we come across in our daily life.

1) **The lenses used in spectacles of a person are found to be thick in the middle but thinner at the edges. The lens used are**

- (a) convex
- (b) concave
- (c) plane
- (d) none of these.

2) **The image formed by a lens is always erect, virtual and smaller in size than the object. The lens is**

- (a) convex
- (b) concave
- (c) plane
- (d) none of these.

3) **The image formed by magnifying glass is**

- (a) real
- (b) virtual
- (c) either real
- (d) none of these is or virtual correct