

# SCHOOL-BASED ASSESSMENT (SBA) - 2025

## END-OF-YEAR ASSESSMENT

SUBJECT: SCIENCE

GRADE-8

FINAL TERM

[Paper A: 48 Marks, Paper B: 52 Marks, Total: 100 Marks], Time = 3 hours

School Name: \_\_\_\_\_

Student Name : \_\_\_\_\_

Roll Number : \_\_\_\_\_

Section : \_\_\_\_\_

### OBJECTIVE PART(MCQs)

**Question No.1 : Which two processes are responsible for releasing carbon dioxide into the atmosphere?**

- (a) Respiration and combustion
- (b) Respiration and reproduction
- (c) Photosynthesis and respiration
- (d) Photosynthesis and combustion

**Question No.3 : Which of the following solutions can be adopted to deal with environmental problems?**

- (a) Deforestation
- (b) Reducing pollution
- (c) Hunting of animals
- (d) Burning of fossil fuels

**Question No.5 : Artistic abilities belong to which part of the brain?**

- (a) Thalamus
- (b) Hypothalamus
- (c) Right hemisphere
- (d) Left hemisphere

**Question No.7 : Language and scars on the skin are examples of:**

- (a) genetic variation
- (b) environmental variation
- (c) mutation
- (d) adaptation

**Question No.9 : In DNA structure, Thymine always pairs with:**

- (a) Adenine
- (b) Guanine
- (c) Thymine
- (d) Cytosine

**Question No.11 : Biotechnological techniques can be used to develop vaccines against:**

- (a) common cold
- (b) measles
- (c) influenza
- (d) tuberculosis

**Question No.13 : Which metal is commonly used for electrical wiring due to its good conductivity?**

- (a) Mercury
- (b) Copper
- (c) Sodium
- (d) Silver

**Question No.15 : Which of the following reactions indicates displacement reaction?**

- (a)  $3\text{H}_2 + \text{N}_2 \rightarrow 2\text{NH}_3$
- (b)  $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
- (c)  $2\text{CO} + \text{O}_2 \rightarrow 2\text{CO}_2$
- (d)  $\text{Zn} + \text{CuSO}_4 \rightarrow \text{ZnSO}_4 + \text{Cu}$

**Question No.17 : An example of an exothermic reaction is:**

- (a) Burning of fuel
- (b) Melting of ice
- (c) Freezing of water
- (d) Dissolving salt in water

**Question No.19 : Which of the following reactions is a neutralization reaction?**

- (a)  $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$
- (b)  $2\text{NaOH} + \text{H}_2\text{SO}_4 \rightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$
- (c)  $\text{CaCO}_3 + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{H}_2\text{O} + \text{CO}_2$
- (d)  $\text{NaCl} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{HCl}$

**Question No.21 : A ball rolling on the ground slows down and finally stops due to:**

- (a) inertia
- (b) friction
- (c) gravity
- (d) motion

**Question No.23 : In which medium, the speed of light is fastest?**

- (a) Air
- (b) Water
- (c) Glass
- (d) Diamond

**Question No.2 : The role of fossil fuels in global warming is to:**

- (a) absorb carbon dioxide
- (b) release oxygen
- (c) emit greenhouse gases
- (d) reduce air pollution

**Question No.4 : Which organ serves as the main pathway for signals between the brain and the rest of the body?**

- (a) Heart
- (b) Lungs
- (c) Spinal Cord
- (d) Stomach

**Question No.6 : Which of the following is an involuntary action?**

- (a) Breathing
- (b) Speaking
- (c) Writing
- (d) Clapping

**Question No.8 : The function of the stem of the cactus plant is to:**

- (a) produce flower
- (b) absorb sunlight
- (c) store water
- (d) support roots

**Question No.10 : What kind of bond holds the base pairs together in the DNA double helix?**

- (a) Ionic bond
- (b) Coordinate covalent bond
- (c) Covalent bond
- (d) Hydrogen bond

**Question No.12 : Elements arranged in horizontal rows are called:**

- (a) periods
- (b) groups
- (c) noble gases
- (d) metals

**Question No.14 : What can be changed to balance a chemical equation?**

- (a) Coefficient
- (b) Subscript
- (c) Symbol
- (d) Formula

**Question No.16 : The complete transfer of electrons results in the formation of \_\_\_\_\_ bond.**

- (a) covalent
- (b) metallic
- (c) ionic
- (d) coordinate

**Question No.18 : Tartaric acid is obtained from:**

- (a) fats
- (b) tamarind
- (c) apples
- (d) citrus fruits

**Question No.20 : Which expression is used to calculate the amount of pressure?**

- (a)  $P = F/M$
- (b)  $P = M/V$
- (c)  $P = A/F$
- (d)  $P = F/A$

**Question No.22 : Which of the following systems works on the principle of hydraulic pressure?**

- (a) Elevator
- (b) Car engine
- (c) Rocket
- (d) Cycle brake

**Question No.24 : When a white light passes through a prism, which three colours are formed first?**

- (a) Violet, green and blue                      (b) Violet, yellow and blue  
(c) Red, orange and yellow                      (d) Red, blue and yellow

**Question No.25 : Due to which characteristic of light, fish in water cannot be seen in its original place?**

- (a) Reflection    (b) Refraction    (c) Dispersion    (d) Transmission

**Question No.26 : Which formula is used to find resistance in an electrical circuit?**

- (a)                      (b)                      (c)                      (d)  
Current/Voltage    Voltage/Current    Resistance/Voltage    Current/Resistance

**Question No.27 : The greater power is consumed in:**

- (a) fan                      (b) bulb                      (c) heater                      (d) television

**Question No.29 : After the power supply stops suddenly, an inverter converts direct current into:**

- (a) alternating    (b) direct                      (c) static                      (d) mechanical

**Question No.31 : Which of the following galaxies belongs to Earth?**

- (a) Condor                      (b) Andromeda    (c) Milky Way                      (d) Comet

**Question No.28 : If a current of 10 Amperes flows through a bulb of 100 Volts. What will be the value of resistance?**

- (a) 0.1 Ohm    (b) 1 Ohm                      (c) 10 Ohm                      (d) 100 Ohm

**Question No.30 : In a solar cooker, the sun rays are reflected by:**

- (a) concave lens    (b) convex lens                      (c) concave mirror                      (d) convex mirror

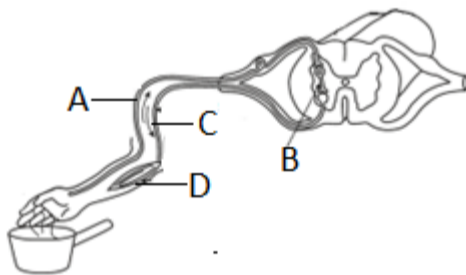
**Question No.32 : The spacecrafts used for performing experiments in space are:**

- (a) space rockets    (b) space probes                      (c) space shuttles                      (d) space stations

## SUBJECTIVE PART(CRQs)

**Question No: 33**

- a ) Define nerve. (2 Marks)  
b ) Differentiate between cranial nerves and spinal nerves. (2+2=4 Marks)  
c ) Write the names of the labelled parts in the given image. (4 Marks)



**Question No: 34**

- a ) Define nucleotide. (2 Marks)  
b ) Explain Watson and Crick's model of DNA. (4 Marks)  
c ) How many types of nucleotides are there in DNA molecule? (4 Marks)

**Question No: 35**

- a ) Write the types of covalent bonds present in the following molecules. (3 Marks)  
 $O_2$ ,  $H_2$ ,  $N_2$   
b ) Why the total mass of reactants is always equal to the total mass of the products? Explain with an example. (4 Marks)  
c ) Explain the formation of sodium chloride with the help of chemical equation. (5 Marks)

**Question No: 36**

- a ) What is meant by the transmission of light? (2 Marks)  
b ) Write any four characteristics of an image formed by a plane mirror. (4 Marks)  
c ) Write any four uses of spherical mirrors. (4 Marks)

**Question No: 37**

- a ) What is a pulsar? (2 Marks)  
b ) Write any four precautionary measures for the survival of astronauts in space. (4 Marks)