

Roll No.

Annual Examination-VIII 2024
GENERAL SCIENCE
(Objective)

Answer Sheet No.

Signature of Candidate:

Signature of Invigilator:

Time Allowed: 40 Minutes

Note: This paper consists of THREE Sections. Section - A needs to be solved on the Question Paper. Section - B & C to be solved on the Answer Sheet. Cutting, erasing and overwriting is not allowed.

SECTION - A (30-Marks)

Q-1 Encircle the correct option. Each part carries equal marks. (30)

- (i) Which of the following elements is a metalloid?
(a) Gold (b) Sulphur (c) Iron (d) Silicon
- (ii) Force applied per unit area gives:
(a) Buoyancy (b) Pressure (c) Friction (d) Net force
- (iii) When you beat a metal piece, it flattens and becomes thinner. This is because metals are:
(a) Flexible (b) Malleable (c) Dense (d) Sonorous
- (iv) Green house traps:
(a) Carbon-dioxide (b) Heat (c) Light (d) Water
- (v) Which of the following is an ionic compound?
(a) H_2O (b) $C_2H_2O_6$ (c) CH_3COOH (d) $NaCl$
- (vi) The device that is used to protect a circuit against overload is:
(a) Heater (b) Fuse (c) Lamp (d) Switch
- (vii) The word acid is derived from Latin word "Acidus" meaning:
(a) Sour (b) Sweet (c) Bitter (d) Salty
- (viii) Which of the following is not an alkali?
(a) KOH (b) $NaOH$ (c) H_2CO_3 (d) $Ca(OH)_2$
- (ix) Which is the largest part of brain?
(a) Brain stem (b) Hypothalamus (c) Thalamus (d) Cerebrum
- (x) Genes are present on:
(a) DNA (b) Chromosomes (c) nucleus (d) nucleotide
- (xi) The reaction between sodium and water produces:
(a) H_2 (b) O_2 (c) $NaCl$ (d) Na_2CO_3
- (xii) With no or very little star formation galaxy is called:
(a) spiral (b) elliptical (c) irregular (d) spherical
- (xiii) Which of the following is not chemical change:
(a) burning (b) baking (c) cooking (d) cutting
- (xiv) Involuntary activity is:
(a) walking (b) eating (c) breathing (d) reading
- (xv) Which of the following group contain alkali metals?
(a) IA (b) IIA (c) IIIA (d) IVB

- (xvi) The light passing from air to glass will cause the speed of light to:
(a) remain the same (b) increase (c) decrease (d) reduce to Zero
- (xvii) Deficiency of insulin hormone cause:
(a) diabetes (b) heart disease (c) hypertension (d) epilepsy
- (xviii) Device used in submarines to see what is going on the surface of water:
(a) Microscope (b) Telescope (c) Periscope (d) Stethoscope
- (xix) The SI unit of voltage is:
(a) Volt (b) Amperes (c) Ohm (d) Watt
- (xx) All of the following involve mitosis EXCEPT:
(a) gamete formation (b) healing of wounds (c) growth (d) development
- (xxi) Which type of mirror is used in solar cooker?
(a) Plane (b) Convex (c) Concave (d) Flat
- (xxii) There are _____ types of nitrogenous bases in DNA:
(a) 2 (b) 4 (c) 3 (d) 5
- (xxiii) Fat and oil when mixed with alkali forms:
(a) soap (b) shampoo (c) plastic (d) toothpaste
- (xxiv) Most common type of galaxies in the universe are:
(a) Spiral (b) Elliptical (c) Irregular (d) Regular
- (xxv) Any change in the environment which has some influence on living organisms is called:
(a) effector (b) response (c) stimulus (d) receptor
- (xxvi) Aquatic life on earth is:
(a) 96% (b) 95% (c) 90% (d) 97%
- (xxvii) The atmospheric pressure will be lowest:
(a) in Islamabad (b) in Lahore (c) in Karachi (d) on top of K-2
- (xxviii) The organism that kills the other for food is called:
(a) prey (b) parasite (c) pathogen (d) predator
- (xxix) Probiotics are made up of good:
(a) Bacteria (b) Virus (c) Fungi (d) Antibodies
- (xxx) The study of the character and evolution of the universe is called:
(a) space technology (b) astronomy (c) cosmology (d) agronomy

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GENERAL SCIENCE

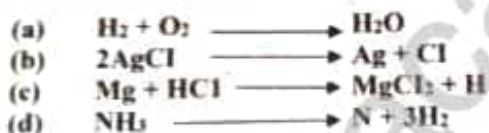
(Subjective)

Time Allowed: 2:20 Hour

SECTION - B (40-Marks)

Q-2. Attempt any TEN parts of the following. Each part carries FOUR marks. (10x4=40)

- (i) Why is it dangerous to touch a live wire while standing on earth barefooted?
- (ii) What happens to the human body if the spinal cord is damaged?
- (iii) With the help of examples explain the difference between double displacement reaction and displacement reaction.
- (iv) Why are large convex mirrors fixed at blind turns of mountains?
- (v) What is white light? How is the color of light related to the reflection and absorption of light?
- (vi) Investigate how current flows through a circuit without a potential difference.
- (vii) Elaborate on the working of UPS.
- (viii) Why will the Sun not become a black hole?
- (ix) How can you define mutualism? Describe with some examples.
- (x) Explain and illustrate the difference between variation and adaptation.
- (xi) What is the significance of fermented food?
- (xii) Metal wires can be transformed into different shapes without breaking. Why?
- (xiii) Balance the equation.



- (xiv) Differentiate between strong and weak acids?
- (xv) If there are many forces acting on an object, how can the net force be ZERO?

SECTION - C (30-Marks)

Note: Attempt any THREE questions and draw a diagram where necessary. (3x10=30)

- Q-3.** (a) Describe how energy flows from producers to consumers. (5)
(b) Differentiate between reflex arc and reflex action and explain the pathway followed by nerve impulse in a reflex arc. (5)
- Q-4.** (a) How is the pressure related to force and area? (5)
(b) Explain resistance as the opposition to the flow of charge. What is the Relationship between voltage and resistance? (5)
- Q-5.** (a) Differentiate between ionic and covalent bond. Explain your answer with the help of examples. (5)
(b) Copper is a good conductor of electricity and plastic is a good insulator. Explain with an example. (5)
- Q-6.** (a) Describe the process of mitosis in detail. (5)
(b) Give some important applications of biotechnology in agriculture and livestock. (5)
- Q-7.** (a) Describe acids and bases with at least two examples of each. (5)
(b) How is the visibility of a non-luminous body possible in the presence of light? (5)