# SSC GD Constable Exam : General Science Practice Set

**Instructions**:
- Choose the correct option for each question.
- Each question carries 2 marks. There is a negative marking of 0.25 marks for each incorrect answer.
- Total Questions: 100 (covering Physics, Chemistry, and Biology).

## Section 1: Physics (Questions 1–35)

1. The SI unit of force is?
   A) Newton
   B) Joule
   C) Watt
   D) Pascal

2. The law of inertia is also known as?
   A) Law of Gravitation
   B) Newton’s Second Law of Motion
   C) Newton’s Third Law of Motion
   D) Newton’s First Law of Motion

3. The speed of light in a vacuum is approximately?
   A) 3 × 10^8 m/s
   B) 3 × 10^6 m/s
   C) 3 × 10^7 m/s
   D) 3 × 10^9 m/s

4. Which instrument is used to measure electric current?
   A) Ammeter
   B) Voltmeter
   C) Galvanometer
   D) Ohmmeter

5. The unit of electric power is?

A) Watt
B) Volt
C) Ampere
D) Ohm

6. The phenomenon of splitting of light into its colors is called?
A) Dispersion
B) Reflection
C) Refraction
D) Diffraction

7. The focal length of a plane mirror is?
A) Infinite
B) Zero
C) Positive
D) Negative

8. The energy possessed by a moving object is called?
A) Kinetic Energy
B) Potential Energy
C) Mechanical Energy
D) Thermal Energy

9. The SI unit of work is?
A) Watt
B) Newton
C) Joule
D) Pascal

10. Which law states that every action has an equal and opposite reaction?
A) Newton’s Third Law
B) Newton’s First Law
C) Newton’s Second Law
D) Law of Gravitation

11. The device that converts electrical energy into mechanical energy is?
A) Electric Motor
B) Generator
C) Transformer
D) Battery

12. The speed of sound in air at 20°C is approximately?
A) 343 m/s
B) 300 m/s
C) 400 m/s
D) 500 m/s

13. The SI unit of pressure is?
A) Pascal
B) Newton
C) Joule
D) Watt

14. The process of changing a solid directly into a gas is called?
A) Sublimation
B) Evaporation
C) Condensation
D) Melting

15. The formula for calculating force is?
A) F = ma
B) F = mv
C) F = mgh
D) F = Pt

16. Which type of lens is used to correct nearsightedness?
A) Concave Lens
B) Convex Lens
C) Plano-Convex Lens
D) Bifocal Lens

17. The unit of resistance is?
A) Volt
B) Ohm
C) Ampere
D) Watt

18. The universal gravitational constant is denoted by?
A) G
B) g
C) F
D) M

19. The device used to measure atmospheric pressure is?
A) Barometer
B) Thermometer
C) Hygrometer
D) Anemometer

20. Which type of energy is stored in a stretched spring?
A) Potential Energy
B) Kinetic Energy
C) Thermal Energy
D) Chemical Energy

21. The formula for Ohm’s Law is?
A) E = mc^2
B) P = VI
C) W = Fd
D) V = IR

22. The primary source of energy for Earth’s climate system is?
A) Sun
B) Moon
C) Earth’s core

D) Wind

23. The phenomenon of bending of light around corners is called?
A) Diffraction
B) Reflection
C) Refraction
D) Dispersion

24. The SI unit of frequency is?
A) Hertz
B) Joule
C) Watt
D) Newton

25. Which instrument is used to measure the temperature?
A) Barometer
B) Thermometer
C) Hygrometer
D) Anemometer

26. The acceleration due to gravity on Earth’s surface is approximately?
A) 9.8 m/s^2
B) 8.9 m/s^2
C) 10 m/s^2
D) 7.8 m/s^2

27. The device that converts mechanical energy into electrical energy is?
A) Generator
B) Motor
C) Transformer
D) Battery

28. The angle of incidence is equal to the angle of reflection in which phenomenon?
A) Dispersion

B) Refraction
C) Diffraction
D) Reflection

29. The SI unit of electric charge is?
A) Coulomb
B) Ampere
C) Volt
D) Ohm

30. Which type of mirror is used in car side mirrors?
A) Convex Mirror
B) Concave Mirror
C) Plane Mirror
D) Spherical Mirror

31. The energy transformation in a hydroelectric power plant is?
A) Potential to Electrical
B) Chemical to Electrical
C) Thermal to Electrical
D) Kinetic to Thermal

32. The formula for calculating power is?
A) $P = W/t$
B) $P = Fd$
C) $P = ma$
D) $P = mv$

33. The principle behind the working of a transformer is?
A) Electromagnetic Induction
B) Gravitation
C) Nuclear Fission
D) Conduction

34. The unit of specific heat capacity is?

A) J/kg·K
B) J/kg
C) J/K
D) kg/J

35. The twinkling of stars is due to?
A) Atmospheric Refraction
B) Reflection
C) Diffraction
D) Dispersion

## Section 2: Chemistry (Questions 36–65)

36. The chemical formula of water is?
A) $H_2O$
B) $CO_2$
C) $O_2$
D) $H_2SO_4$

37. The pH value of a neutral solution is?
A) 7
B) 0
C) 14
D) 1

38. Which gas is known as the "laughing gas"?
A) Nitrous Oxide
B) Carbon Dioxide
C) Oxygen
D) Nitrogen

39. The atomic number of an element is determined by the number of?
A) Protons
B) Electrons
C) Neutrons

D) Nucleons

40. The chemical name of common salt is?
A) Sodium Chloride
B) Sodium Hydroxide
C) Calcium Chloride
D) Potassium Chloride

41. Which element is the most abundant in Earth's crust?
A) Oxygen
B) Silicon
C) Aluminum
D) Iron

42. The process of rusting of iron involves which gas?
A) Oxygen
B) Nitrogen
C) Carbon Dioxide
D) Hydrogen

43. The chemical formula of carbon dioxide is?
A) $CO_2$
B) CO
C) $C_2O$
D) $C_2O_2$

44. Which acid is present in lemon juice?
A) Citric Acid
B) Sulphuric Acid
C) Hydrochloric Acid
D) Nitric Acid

45. The main constituent of natural gas is?
A) Methane
B) Ethane

C) Propane
D) Butane

46. The process of conversion of a gas into a liquid is called?
A) Condensation
B) Evaporation
C) Sublimation
D) Freezing

47. Which metal is liquid at room temperature?
A) Mercury
B) Iron
C) Copper
D) Aluminum

48. The chemical symbol "Na" represents which element?
A) Sodium
B) Nitrogen
C) Nickel
D) Neon

49. Which gas is essential for photosynthesis?
A) Carbon Dioxide
B) Oxygen
C) Nitrogen
D) Hydrogen

50. The,UAW The chemical formula of baking soda is?
A) Sodium Bicarbonate
B) Sodium Carbonate
C) Sodium Hydroxide
D) Sodium Chloride

51. The reaction between an acid and a base produces?
A) Salt and Water

B) Gas and Water
C) Salt and Gas
D) Acid and Water

52. The valency of carbon is?
A) 4
B) 2
C) 3
D) 1

53. Which gas is filled in electric bulbs to prevent filament oxidation?
A) Argon
B) Oxygen
C) Nitrogen
D) Helium

54. The chemical name of limestone is?
A) Calcium Carbonate
B) Calcium Chloride
C) Calcium Oxide
D) Calcium Sulphate

55. Which element is used in pencil lead?
A) Graphite
B) Carbon
C) Lead
D) Charcoal

56. The pH value of an acidic solution is?
A) Less than 7
B) More than 7
C) Equal to 7
D) Equal to 14

57. The process of coating iron with zinc is called?

A) Galvanization
B) Corrosion
C) Electroplating
D) Oxidation

58. Which gas is produced during photosynthesis?
A) Oxygen
B) Carbon Dioxide
C) Nitrogen
D) Hydrogen

59. The chemical formula of ozone is?
A) $O_3$
B) $O_2$
C) O
D) $O_4$

60. Which element is the primary component of steel?
A) Iron
B) Carbon
C) Chromium
D) Nickel

61. The main source of energy for Earth’s climate system is?
A) Sun
B) Fossil Fuels
C) Geothermal Energy
D) Nuclear Energy

62. The chemical name of vinegar is?
A) Acetic Acid
B) Citric Acid
C) Sulphuric Acid
D) Lactic Acid

63. Which gas is used in fire extinguishers?
A) Carbon Dioxide
B) Oxygen
C) Nitrogen
D) Helium

64. The atomic number of oxygen is?
A) 8
B) 6
C) 7
D) 9

65. The process of burning in the presence of oxygen is called?
A) Combustion
B) Reduction
C) Oxidation
D) Decomposition

## Section 3: Biology (Questions 66–100)

66. The powerhouse of the cell is?
A) Mitochondria
B) Nucleus
C) Ribosome
D) Cell Membrane

67. The process by which plants make their food is called?
A) Photosynthesis
B) Respiration
C) Transpiration
D) Digestion

68. The human body has how many chromosomes?
A) 46
B) 23

C) 48
D) 44

69. The vitamin essential for blood clotting is?
A) Vitamin K
B) Vitamin C
C) Vitamin D
D) Vitamin A

70. The largest organ in the human body is?
A) Skin
B) Liver
C) Heart
D) Lungs

71. The primary source of energy for the human body is?
A) Carbohydrates
B) Proteins
C) Fats
D) Vitamins

72. The process of breaking down food into energy is called?
A) Respiration
B) Photosynthesis
C) Digestion
D) Excretion

73. Which gas is exhaled by humans during respiration?
A) Carbon Dioxide
B) Oxygen
C) Nitrogen
D) Hydrogen

74. The pigment that gives blood its red color is?
A) Hemoglobin

B) Chlorophyll
C) Melanin
D) Carotene

75. The smallest unit of life is?
A) Cell
B) Tissue
C) Organ
D) Organism

76. The vitamin essential for healthy bones is?
A) Vitamin D
B) Vitamin A
C) Vitamin C
D) Vitamin B

77. The process of cell division in body cells is called?
A) Mitosis
B) Meiosis
C) Binary Fission
D) Budding

78. The brain and spinal cord form part of the?
A) Central Nervous System
B) Peripheral Nervous System
C) Autonomic Nervous System
D) Sympathetic Nervous System

79. The deficiency of Vitamin C causes which disease?
A) Scurvy
B) Rickets
C) Beriberi
D) Night Blindness

80. The organ responsible for filtering blood is?

A) Kidney
B) Liver
C) Heart
D) Lungs

81. The process by which water moves through a plant is called?
A) Transpiration
B) Photosynthesis
C) Respiration
D) Absorption

82. The human heart has how many chambers?
A) 4
B) 2
C) 3
D) 5

83. Which vitamin is produced by the skin when exposed to sunlight?
A) Vitamin D
B) Vitamin A
C) Vitamin C
D) Vitamin K

84. The disease caused by the deficiency of iodine is?
A) Goitre
B) Scurvy
C) Rickets
D) Anemia

85. The process of releasing energy from food in cells is called?
A) Cellular Respiration
B) Photosynthesis
C) Digestion
D) Fermentation

86. The main function of red blood cells is to?
A) Carry oxygen
B) Fight infections
C) Clot blood
D) Produce hormones

87. The green pigment in plants is called?
A) Chlorophyll
B) Hemoglobin
C) Melanin
D) Carotene

88. The largest bone in the human body is?
A) Femur
B) Skull
C) Spine
D) Humerus

89. The deficiency of iron causes which disease?
A) Anemia
B) Scurvy
C) Rickets
D) Goitre

90. The organ that produces insulin is?
A) Pancreas
B) Liver
C) Kidney
D) Thyroid

91. The process of reproduction in bacteria is called?
A) Binary Fission
B) Mitosis
C) Meiosis
D) Budding

92. The main function of white blood cells is to?
A) Fight infections
B) Carry oxygen
C) Clot blood
D) Produce energy

93. The vitamin essential for vision is?
A) Vitamin A
B) Vitamin C
C) Vitamin D
D) Vitamin K

94. The part of the plant that anchors it to the soil is?
A) Root
B) Stem
C) Leaf
D) Flower

95. The disease caused by the deficiency of Vitamin B1 is?
A) Beriberi
B) Scurvy
C) Rickets
D) Anemia

96. The organ responsible for pumping blood is?
A) Heart
B) Lungs
C) Liver
D) Kidney

97. The process by which organisms produce offspring is called?
A) Reproduction
B) Respiration
C) Digestion

D) Excretion

98. The hormone that regulates blood sugar levels is?
A) Insulin
B) Adrenaline
C) Thyroxine
D) Estrogen

99. The smallest blood vessels in the body are?
A) Capillaries
B) Arteries
C) Veins
D) Venules

100. The study of living organisms is called?
A) Biology
B) Physics
C) Chemistry
D) Geology

---

## SSC GD Constable Exam : General Science Practice Set - Answers and Explanations

### Section 1: Physics

1. Answer: A
Explanation: The SI unit of force is Newton (N), named after Sir Isaac Newton.

2. Answer: D
Explanation: Newton's First Law of Motion, also called the law of inertia, states that an object remains at rest or in motion unless acted upon by an external force.

3. Answer: A
Explanation: The speed of light in a vacuum is approximately 3 × 10^8 meters per second.

4. Answer: A
Explanation: An ammeter measures electric current in amperes.

5. Answer: A
Explanation: The unit of electric power is Watt (W), a measure of energy transfer rate.

6. Answer: A
Explanation: Dispersion is the splitting of white light into its constituent colors, as seen in a prism.

7. Answer: A
Explanation: A plane mirror has an infinite focal length because it does not converge light.

8. Answer: A
Explanation: Kinetic energy is the energy of a moving object, given by $\frac{1}{2}mv^2$.

9. Answer: C
Explanation: The SI unit of work is Joule (J), equivalent to Newton-meter.

10. Answer: A
Explanation: Newton's Third Law states that every action has an equal and opposite reaction.

11. Answer: A
Explanation: An electric motor converts electrical energy into mechanical energy.

12. Answer: A
Explanation: The speed of sound in air at 20°C is approximately 343 meters per second.

13. Answer: A
Explanation: The SI unit of pressure is Pascal (Pa), defined as $N/m^2$.

14. Answer: A
Explanation: Sublimation is the direct transition of a solid to a gas, e.g., dry ice.

15. Answer: A
Explanation: Force is calculated as F = ma (mass × acceleration), per Newton's Second Law.

16. Answer: A
Explanation: A concave lens corrects nearsightedness (myopia) by diverging light.

17. Answer: B
Explanation: Resistance is measured in Ohms (Ω), a unit of electrical resistance.

18. Answer: A
Explanation: The universal gravitational constant is denoted by G in the formula $F = G(m_1m_2/r^2)$.

19. Answer: A
Explanation: A barometer measures atmospheric pressure, typically using mercury or aneroid.

20. Answer: A
Explanation: A stretched spring stores potential energy due to its elastic deformation.

21. Answer: D
Explanation: Ohm’s Law states that voltage (V) equals current (I) times resistance (R), V = IR.

22. Answer: A
Explanation: The Sun is the primary source of energy for Earth’s climate system via solar radiation.

23. Answer: A
Explanation: Diffraction is the bending of light around obstacles or through slits.

24. Answer: A
Explanation: The SI unit of frequency is Hertz (Hz), measuring cycles per second.

25. Answer: B
Explanation: A thermometer measures temperature in Celsius, Fahrenheit, or Kelvin.

26. Answer: A
Explanation: The acceleration due to gravity on Earth is approximately 9.8 $m/s^2$.

27. Answer: A
Explanation: A generator converts mechanical energy into electrical energy.

28. Answer: D
Explanation: The law of reflection states that the angle of incidence equals the angle of reflection.

29. Answer: A
Explanation: The SI unit of electric charge is Coulomb (C).

30. Answer: A
Explanation: Convex mirrors are used in car side mirrors to provide a wider field of view.

31. Answer: A
Explanation: Hydroelectric power plants convert the potential energy of water into electrical energy.

32. Answer: A
Explanation: Power is calculated as P = W/t (work divided by time).

33. Answer: A
Explanation: Transformers work on the principle of electromagnetic induction to change voltage.

34. Answer: A
Explanation: Specific heat capacity is measured in J/kg·K (Joules per kilogram per Kelvin).

35. Answer: A
Explanation: The twinkling of stars is caused by atmospheric refraction of starlight.

## Section 2: Chemistry

36. Answer: A
Explanation: The chemical formula of water is $H_2O$, consisting of two hydrogen atoms and one oxygen atom.

37. Answer: A
Explanation: A neutral solution has a pH of 7, indicating a balance of $H^+$ and $OH^-$ ions.

38. Answer: A

Explanation: Nitrous oxide ($N_2O$) is known as laughing gas due to its anesthetic effects.

39. Answer: A
Explanation: The atomic number is the number of protons in an atom's nucleus.

40. Answer: A
Explanation: Common salt is sodium chloride (NaCl), used in food and industry.

41. Answer: A
Explanation: Oxygen is the most abundant element in Earth's crust, making up about 46%.

42. Answer: A
Explanation: Rusting is the oxidation of iron in the presence of oxygen and moisture.

43. Answer: A
Explanation: The chemical formula of carbon dioxide is $CO_2$, a greenhouse gas.

44. Answer: A
Explanation: Lemon juice contains citric acid, which gives it a sour taste.

45. Answer: A
Explanation: Methane ($CH_4$) is the primary component of natural gas, used as fuel.

46. Answer: A
Explanation: Condensation is the process of a gas turning into a liquid, e.g., water vapor to droplets.

47. Answer: A

Explanation: Mercury is the only metal that is liquid at room temperature.

48. Answer: A
Explanation: The chemical symbol Na represents sodium in the periodic table.

49. Answer: A
Explanation: Carbon dioxide is used by plants during photosynthesis to produce glucose.

50. Answer: A
Explanation: Baking soda is sodium bicarbonate ($NaHCO_3$), used as a leavening agent.

51. Answer: A
Explanation: The reaction between an acid and a base produces salt and water (neutralization).

52. Answer: A
Explanation: Carbon has a valency of 4, forming four bonds in compounds like methane.

53. Answer: A
Explanation: Argon is used in electric bulbs to prevent filament oxidation due to its inert nature.

54. Answer: A
Explanation: Limestone is calcium carbonate ($CaCO_3$), used in construction and cement.

55. Answer: A
Explanation: Pencil lead is made of graphite, a form of carbon.

56. Answer: A

Explanation: Acidic solutions have a pH less than 7 due to higher $H^+$ ion concentration.

57. Answer: A
Explanation: Galvanization is the process of coating iron with zinc to prevent corrosion.

58. Answer: A
Explanation: Photosynthesis produces oxygen as a byproduct while converting $CO_2$ into glucose.

59. Answer: A
Explanation: Ozone ($O_3$) is a triatomic molecule found in the stratosphere, protecting against UV rays.

60. Answer: A
Explanation: Steel is primarily iron with a small percentage of carbon for strength.

61. Answer: A
Explanation: The Sun is the primary energy source for Earth’s climate system.

62. Answer: A
Explanation: Vinegar is a dilute solution of acetic acid ($CH_3COOH$).

63. Answer: A
Explanation: Carbon dioxide is used in fire extinguishers to smother fires by displacing oxygen.

64. Answer: A
Explanation: The atomic number of oxygen is 8, indicating 8 protons.

65. Answer: A

Explanation: Combustion is the chemical process of burning in the presence of oxygen.

## Section 3: Biology

66. Answer: A
Explanation: Mitochondria produce energy (ATP) through cellular respiration, earning the name "powerhouse."

67. Answer: A
Explanation: Photosynthesis is the process by which plants use sunlight to produce glucose.

68. Answer: A
Explanation: Humans have 46 chromosomes (23 pairs) in their somatic cells.

69. Answer: A
Explanation: Vitamin K is essential for blood clotting, aiding in the formation of clotting factors.

70. Answer: A
Explanation: The skin is the largest organ, protecting the body and regulating temperature.

71. Answer: A
Explanation: Carbohydrates are the primary energy source, broken down into glucose.

72. Answer: A
Explanation: Digestion breaks down food into nutrients for energy and growth.

73. Answer: A

Explanation: Carbon dioxide is exhaled during respiration as a waste product.

74. Answer: A
Explanation: Hemoglobin in red blood cells gives blood its red color and carries oxygen.

75. Answer: A
Explanation: The cell is the smallest unit of life, capable of performing all life functions.

76. Answer: A
Explanation: Vitamin D promotes calcium absorption for healthy bones.

77. Answer: A
Explanation: Mitosis is the process of cell division for growth and repair in body cells.

78. Answer: A
Explanation: The central nervous system consists of the brain and spinal cord, controlling bodily functions.

79. Answer: A
Explanation: Vitamin C deficiency causes scurvy, characterized by bleeding gums and fatigue.

80. Answer: A
Explanation: The kidneys filter blood to remove waste and produce urine.

81. Answer: A
Explanation: Transpiration is the evaporation of water from plant leaves, aiding water movement.

82. Answer: A

Explanation: The human heart has four chambers: two atria and two ventricles.

83. Answer: A
Explanation: The skin produces vitamin D when exposed to sunlight.

84. Answer: A
Explanation: Iodine deficiency causes goitre, an enlargement of the thyroid gland.

85. Answer: A
Explanation: Cellular respiration releases energy from food in the form of ATP.

86. Answer: A
Explanation: Red blood cells carry oxygen from the lungs to the body’s tissues.

87. Answer: A
Explanation: Chlorophyll is the green pigment in plants that absorbs sunlight for photosynthesis.

88. Answer: A
Explanation: The femur (thigh bone) is the largest and strongest bone in the human body.

89. Answer: A
Explanation: Iron deficiency causes anemia, reducing red blood cell production.

90. Answer: A
Explanation: The pancreas produces insulin, which regulates blood sugar levels.

91. Answer: A

Explanation: Bacteria reproduce asexually through binary fission, splitting into two cells.

92. Answer: A
Explanation: White blood cells fight infections as part of the immune system.

93. Answer: A
Explanation: Vitamin A is essential for vision, especially in low-light conditions.

94. Answer: A
Explanation: Roots anchor plants to the soil and absorb water and nutrients.

95. Answer: A
Explanation: Vitamin B1 deficiency causes beriberi, affecting the nervous and cardiovascular systems.

96. Answer: A
Explanation: The heart pumps blood to supply oxygen and nutrients to the body.

97. Answer: A
Explanation: Reproduction is the process by which organisms produce offspring.

98. Answer: A
Explanation: Insulin, produced by the pancreas, regulates blood glucose levels.

99. Answer: A
Explanation: Capillaries are the smallest blood vessels, facilitating nutrient and gas exchange.

100. Answer: A
Explanation: Biology is the scientific study of living organisms and their interactions.

---

**Disclaimer**

This SSC GD Constable Exam General Science Practice Set is for educational purposes only and is not affiliated with or endorsed by the Staff Selection Commission (SSC). The content is based on the SSC GD syllabus and previous year question patterns from reliable sources (e.g., ssc.gov.in, NCERT Class 9–10 Science textbooks). It is a supplementary resource and does not guarantee inclusion in the actual exam. Users should refer to official SSC materials for comprehensive preparation. The creator is not liable for errors or exam outcomes.

---