

# AIIMS SCREENING TEST - 15-03-2026

## PHYSICS + CHEMISTRY + BIOLOGY

### SECTION -A (PHYSICS)

1. If the unit of force is 100N, unit of length is 10m and unit of time is 100s, what is the unit of mass in this system of units?

- 1)  $10^3$  kg                      2)  $10^4$  kg                      3)  $10^5$  kg                      4)  $10^6$  kg

**Ans.3**

2. Study following statements:-

- i) Displacement is independent of the choice of origin of the axis
- ii) Displacement may or may not be equal to the distance travelled
- iii) When a particle returns to its starting point, its displacement is not zero
- iv) Displacement does not tell the nature of the actual motion of a particle between the points

Which of the above statements are correct?

- 1) Statements i, ii and iii                      2) Statements ii, iii and iv  
3) Statements i, ii and iv                      4) Statements i, iii and iv

**Ans. 3**

3. The numerical ratio of displacement to distance is

- 1) always less than one                      2) always more than one  
3) always equal to one                      4) equal to or less than one

**Ans. 4**

4. Motion under gravity near the surface of the earth is an example of

- 1) uniform motion                      2) uniformly accelerated motion  
3) non-uniformly accelerated motion                      4) motion with uniform velocity

**Ans. 2**

5. A passenger getting down from a moving bus falls in the direction of the motion of the bus. This is an example for

- 1) second law of motion                      2) third law of motion  
3) inertia of rest                      4) inertia of motion

**Ans. 4**

6. An object is thrown vertically upwards. At its maximum height, which of the following quantity becomes zero?

- 1) Momentum                      2) Potential energy                      3) Acceleration                      4) Force

**Ans. 1**

7. Which one of the following is not a conservative force

- 1) Gravitational force  
2) Electrostatic force between two charges  
3) Magnetic force between two bar magnets  
4) Frictional force

**Ans. 4**

8. Two bodies of mass 1 kg and 4kg are moving with equal kinetic energies. The ratio of their linear momentum is

- 1) 1 : 2                      2) 2 : 1                      3) 4 : 1                      4) 1 : 4

**Ans. 1**

9. Weight of a body

- 1) increases with height                      2) increases with depth  
3) is maximum on the surface of earth                      4) is minimum on the surface of earth

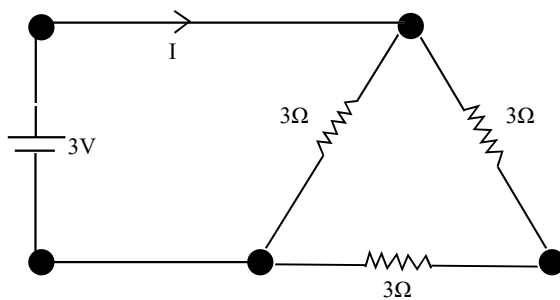
**Ans. 3**

10. The wavelength of a sound wave whose frequency is 220 Hz and the speed is 440 m/s in the given medium is

- 1) 10 m                      2) 2m                      3) 0.2 m                      4) None of these

**Ans. 2**

11. A 3 volt battery with negligible internal resistance is connected in a circuit as shown in the figure. The current  $I$ , in the circuit will be



- 1)  $\frac{1}{3}$  A                      2) 1A                      3) 1.5 A                      4) 2A

**Ans. 3**

12. What does an electric charge in uniform motion produce?

- 1) An electric field only
- 2) A magnetic field only
- 3) Neither electric nor magnetic field
- 4) Both electric and magnetic fields

**Ans. 4**

13. Sound with frequency less than 20 Hz is called

- 1) Infrasonic
- 2) Ultrasonic
- 3) Audible
- 4) Shock waves

**Ans. 1**

14. A convex mirror of focal length  $f$  forms an image which is  $\frac{1}{n}$  times the object. The distance of the object from the mirror is

- 1)  $(n-1)f$
- 2)  $\left(\frac{n-1}{n}\right)f$
- 3)  $\left(\frac{n+1}{n}\right)f$
- 4)  $(n+1)f$

**Ans. 1**

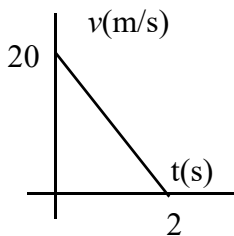
15. When light travels from air to glass, which of the following properties does not change?

- 1) Frequency
- 2) Velocity
- 3) Velocity and frequency
- 4) Wavelength

**Ans. 1**

### **SECTION -B (PHYSICS)**

16. Velocity-time graph of a particle of mass 2kg moving in a straight line is as shown in figure. Magnitude of work done by all the forces on the particle in joule is



**Ans. 400**  $W = \text{Change in KC} = \frac{mV^2}{2} - \frac{mu^2}{2} = 0 - \frac{2}{2} \times 20^2 = -400 \text{ J}$

17. Two wires have the same length. But area of cross-section of one is 4 times that of the other. If the resistance of thinner wire be  $200\Omega$ , the resistance of the thicker wire in ohm is

**Ans. 50**

18. Three equal resistors connected in series across a source of emf together dissipate 10W of power. If the same resistors are connected in parallel across the same source of emf, the power dissipated in watt will be

**Ans. 90**

19. A particle of mass 0.3 kg is subjected to a force  $F = Kx^2$  with  $K = 15 \text{ N/m}^2$ , what will be its acceleration in  $\text{m/s}^2$ , when it is released from a point  $x = 20 \text{ cm}$

**Ans. 2**       $a = \frac{F}{m} = \frac{Kx^2}{m} = \frac{15}{0.3} \times 400 \times 10^{-4} = 2$

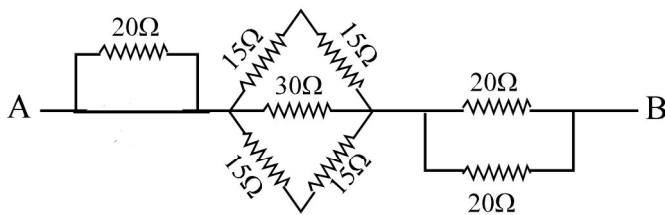
20. Potential difference applied across a conductor of resistance  $50\Omega$  is 200 V. The current through the resistance in ampere is

**Ans. 4**

21. A person stands in front of a plane mirror at a distance of 2.5 m from it. What is the distance between the person and his image in m

**Ans. 5**

22. Find equivalent resistance between A and B in ohm



**Ans. 20**

23. A ray of light is incident on a plane mirror at an angle of incidence  $60^\circ$ . The angle between the directions of incident ray and reflected ray in degree is

**Ans.  $60^\circ$**

24. Initial and final velocity of a particle moving with uniform acceleration is 10 m/s and 20 m/s respectively. The average velocity of motion in m/s is

**Ans. 15**

25. A particle of mass 2kg starts from rest has a velocity 10 m/s after 2s. The average force acting on the particle in newton is

**Ans. 10**  $F = ma = m \left[ \frac{v - u}{t} \right] = \frac{2(10 - 0)}{2} = 10 \text{ N}$

### **SECTION -A (CHEMISTRY)**

26. An element X has electronic configuration 2, 8, 1 and another element Y has electronic configuration 2, 8, 7. They form a compound Z. The property not exhibited by Z is

- 1) It has high melting point
- 2) It is a good conductor of electricity in its pure solid state
- 3) It breaks into pieces when beaten with hammer
- 4) It is soluble in water

**Ans. 2 The compound Z is NaCl an ionic compound**

27. An element X reacts with dilute sulphuric acid as well as aqueous sodium hydroxide to produce salt and  $H_2$  gas. Hence it may be concluded that

- i) X is an electropositive element
- ii) Oxide of X shows basic nature
- iii) Oxide of X shows acidic nature
- iv) X is an electronegative element

Chose the correct answer from options given below

- 1) i, ii and iii only      2) iv, i and iii only      3) iii, iv and i only      4) ii, iii and iv only

**Ans. 1 X is a metal that reacts with both acid and alkali, its oxide is amphoteric (eg Zn)**

28. The formula of oxide of a metal (M) is MO. The formula of its nitride will be

- 1)  $M_2N_3$                       2) MN                      3)  $M_2N$                       4)  $M_3N_2$

**Ans. 4 Valency of metal is 2 formula of its nitride is  $M_3N_2$**

29. A solution is a homogeneous mixture of two or more substances. Which of the following is a solution?

- 1) Milk                      2) Smoke                      3) Cheese                      4) Tincture of iodine

**Ans. 4 Tincture iodine is a solution of  $I_2$  (solid) in alcohol (liquid) .**

30. The turmeric solution will turn red by an aqueous solution of

- 1) Potassium acetate    2) Copper sulphate
- 3) Sodium sulphate    4) Ferric chloride

**Ans. 1      Potassium acetate is the salt of strong base and weak acid, its solution is basic**

31. Hydrogen gas is not liberated when

- 1) Zinc react with dilute sulphuric acid
- 2) Copper react with dilute sulphuric acid
- 3) Zinc react with aqueous sodium hydroxide
- 4) Sodium metal react with cold water

**Ans. 2      Copper do not liberate H<sub>2</sub> from dilute acids**

32. Two elements A and B contain 13 and 8 protons respectively. If the number of neutrons in them happen to be 14 and 8 respectively. The formula unit mass for the compound between A and B would be

- 1) 43 u                      2) 75 u                      3) 102 u                      4) 112 u

**Ans. 3      A = Aluminium ; B = Oxygen**

**Compound is Al<sub>2</sub>O<sub>3</sub>**

**Formula unit mass (27 × 2) + (3 × 16) = 102**

33. When a solution obtained by dissolving sodium sulphate in water is mixed with another solution obtained by dissolving Barium Chloride in water, a precipitate is formed. The precipitate formed is

- 1) Barium hydroxide                      2) Barium sulphate
- 3) Sodium chloride                      4) Sulphuric acid

**Ans. 2      The precipitate is BaSO<sub>4</sub>**



38. Aqueous solutions of which among the following do not conduct electricity?

- 1) Common salt      2) Vinegar      3) Caustic soda      4) Cane sugar

**Ans. 4      Cane sugar is not an ionic compound**

39. When exposed to air silver articles become black after sometime. This is because of formation of a coating of

- 1) Silver carbonate      2) Silver iodide      3) Silver sulphide      4) Silver nitrate

**Ans. 3      Tarnishing of silver is due to formation of  $\text{Ag}_2\text{S}$**

40. Formula of functional group of alcohols is

- 1)  $-\text{CHO}$       2)  $>\text{C} = \text{O}$       3)  $-\text{OH}$       4)  $-\text{COOH}$

**Ans. 3      Functional group of alcohols is  $-\text{OH}$**

### **SECTION -B (CHEMISTRY)**

41. Percentage of oxygen (by mass) in Aluminium sulphate is ..... (nearest integer)

**Ans. 56      % of oxygen is  $\text{Al}_2(\text{SO}_4)_3 = \frac{12 \times 16}{342} \times 100 = 56.14\%$**

42. How many of the following are metals?

- i) Calcium (Ca)
- ii) Gallium (Ga)
- iii) Iodine (I)
- iv) Carbon (graphite, C)
- v) Lead (Pb)
- vi) Sulphur (S)
- vii) Hydrogen (H)

**Ans. 3      I, C, S, and H are non metals**

43. Maximum number of electrons that can be accommodated in L shell of an atom is .....

**Ans. 8      Number of electrons in K shell = 2, L shell = 8**

44. How many oxides among the following exhibit acidic character ie react with bases to form salt?

- |  |  |
|--|--|
| i) Calcium oxide (CaO)                               | ii) Carbon dioxide (CO <sub>2</sub> )  |
| iii) Zinc oxide (ZnO)                                | iv) Sulphur dioxide (SO <sub>2</sub> ) |
| v) Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> ) | vi) Potassium oxide (K <sub>2</sub> O) |

**Ans. 4      CaO and K<sub>2</sub>O are basic**  
**ZnO and Al<sub>2</sub>O<sub>3</sub> are amphoteric**  
**SO<sub>2</sub> and CO<sub>2</sub> are acidic**  
**Both acidic oxides and amphoteric oxides react with bases to form salts**

45. At 298 K aqueous solutions of how many substances among the following are acidic (ie pH < 7)?

- |   |   |
|---|---|
| i) Sodium chloride (NaCl)                               | ii) Ammonium chloride (NH <sub>4</sub> Cl)              |
| iii) Sodium acetate (CH <sub>3</sub> COONa)             | iv) Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> ) |
| v) Potassium sulphate (K <sub>2</sub> SO <sub>4</sub> ) |   |

**Ans. 1      Salts of weak base and strong acid are acidic in aqueous solution. Eg: NH<sub>4</sub>Cl**

46. Consider the balanced chemical equation  $x\text{Fe}(\text{s}) + y\text{H}_2\text{O}(\text{g}) \longrightarrow p\text{Fe}_3\text{O}_4(\text{s}) + q\text{H}_2(\text{g})$  where x, y, p and q are co-efficients in balanced equations. The value of q is .....

**Ans. 4      The balanced equation is  $3\text{Fe}(\text{s}) + 4\text{H}_2\text{O}(\text{g}) \rightarrow \text{Fe}_3\text{O}_4(\text{s}) + 4\text{H}_2(\text{g})$**

47. The number of metal atoms present in one formula unit of sodium zincate is .....

**Ans. 3      Sodium zincate is Na<sub>2</sub>ZnO<sub>2</sub>**

48. Sodium hydrogen carbonate on heating produce sodium carbonate, water and a colourless gas. The molecular mass of the gas produced is ..... u (Given atomic mass of Na = 23u, C=12u, H=1u, O=16u)

**Ans. 44      The gas produced is CO<sub>2</sub> Mol.mass of CO<sub>2</sub> = 12 + 16 + 16 = 44 u**

49. How many of the following are alkali metals?

- |                    |                    |                  |
|--------------------|--------------------|------------------|
| i) Iron (Fe)       | ii) Copper (Cu)    | iii) Sodium (Na) |
| iv) Cobalt (Co)    | v) Silver (Au)     | vi) Lithium (Li) |
| vii) Potassium (K) | viii) Cadmium (Cd) | ix) Gold (Au)    |
| x) Platinum (Pt)   |                    |                  |

**Ans. 3      Li, Na and K are alkali metals**

50. How many different concentrated acids are mixed together to form aqua regia?

**Ans. 2** Aqua regia is a freshly prepared mixture of concentrated hydrochloric acid and concentrated nitric acid in the ratio 3 : 1

**SECTION - A (BIOLOGY)**

51. If pea plants with round and green seed (RRyy) are crossed with pea plants having wrinkled and yellow seeds (rrYY), the seeds developed by the plants of F<sub>1</sub> generation will be

- 1) 50% round and green
- 2) 75% wrinkled and green
- 3) 100% round and yellow
- 4) 75% wrinkled and yellow

**Ans. 3**

52. Which of the following combinations of crop-season-climatic requirement is most accurate?

- 1) Rice- Rabi- Cool temperature and moderate rainfall
- 2) Mustard- Kharif- High temperature and heavy rainfall
- 3) Cotton- Rabi- Low temperature and low rainfall
- 4) Watermelon- Zaid- Hot and dry climate

**Ans. 4**

53. Match the following animal husbandry practices with their correct products.

List-I (Practice)	List-II (Product)
A) Apiculture	i) Milk
B) Cattle rearing	ii) Honey
C) Pisciculture	iii) Fish
D) Poultry culture	iv) Eggs

- 1) A-i, B-ii, C-iii, D-iv
- 2) A-ii, B-i, C-iii, D-iv
- 3) A-ii, B-iii, C-iv, D-i
- 4) A-iii, B-i, C-ii, D-iv

**Ans. 2**

54. Following are the pictures of some cell organelles. Identify the correct set of names from the option?



- 1) A – Chloroplast , B- Ribosome , C- Endoplasmic reticulum, D- Mitochondria
- 2) A- Ribosome, B- -Endoplasmic reticulum, C- Mitochondria, D-Chloroplast
- 3) A- Mitochondria, B- Chloroplast, C- Ribosome, D- Endoplasmic reticulum
- 4) A- Mitochondria, B- Chloroplast, C- Endoplasmic reticulum, D- Ribosome

**Ans. 3**

55. Arrange the following parts of a plant cell from outside to inside.

- |                    |               |
|--------------------|---------------|
| i) Plasma membrane | ii) Cell wall |
| iii) Cytoplasm     | iv) Nucleus   |
- 1) ii → i → iii → iv
  - 2) i → ii → iii → iv
  - 3) ii → iii → i → iv
  - 4) iii → ii → i → iv

**Ans. 1**

56. In a neuron, conversion of electrical signal to a chemical signal occurs at/on :

- |              |               |                 |         |
|--------------|---------------|-----------------|---------|
| 1) Cell body | 2) Axonal end | 3) Dendrite end | 4) Axon |
|--------------|---------------|-----------------|---------|

**Ans. 2**

57. What is the correct sequence of the components of a reflex arc?
- 1) Receptors→Muscles →Sensory neuron →Motor neuron →Spinal cord
  - 2) Receptors→Motor neuron→Spinal cord→Sensory neuron→Muscle
  - 3) Receptors→Spinal cord →Sensory neuron →Motor neuron →Muscle
  - 4) Receptors→Sensory neuron →Spinal cord→Motor neuron→Muscle

**Ans. 4**

58. Which blood vessel carries oxygenated blood from the lungs to the heart?
- 1) Pulmonary artery
  - 2) Pulmonary vein
  - 3) Aorta
  - 4) Vena cava

**Ans. 2**

59. What is the correct sequence of flow of deoxygenated blood from body to lungs?
- 1) Body → Vena cava → Right atrium → Right ventricle → Pulmonary artery → Lungs
  - 2) Body → Aorta → Right atrium → Pulmonary vein → Lungs
  - 3) Body → Vena cava → Left atrium → Pulmonary artery → Lungs
  - 4) Body → Aorta → Right ventricle → Pulmonary artery → Lungs

**Ans. 1**

60. Which part of the brain controls involuntary actions like heartbeat and breathing?
- 1) Cerebellum
  - 2) Cerebrum
  - 3) Medulla oblongata
  - 4) Thalamus

**Ans. 3**

61. Vasectomy is a method of:
- 1) Female sterilization
  - 2) Male sterilization
  - 3) Artificial insemination
  - 4) Hormone therapy

**Ans. 2**

62. Which device is placed in the uterus to prevent pregnancy?
- 1) Copper-T
  - 2) Condom
  - 3) Diaphragm
  - 4) Pill

**Ans. 1**

63. The gap between two neurons is called:

- 1) Axon                      2) Dendron                      3) Synapse                      4) Nerve

**Ans. 3**

64. The path taken by nerve impulses in reflex action is called:

- 1) Reflex arc                      2) Neural path                      3) Motor path                      4) Brain path

**Ans. 1**

65. How many statements correctly describe weeding in agriculture?

- A) It loosens the soil and improves aeration.  
B) It involves the removal of unwanted plants growing along with crops.  
C) It helps reduce competition for nutrients, water and sunlight.  
D) It separates the grains from chaff after harvesting.

- 1) 2                      2) 1                      3) 3                      4) All

**Ans. 1**

### **SECTION - B (BIOLOGY)**

66. How many statements are correct :

- 1) Drip irrigation supplies water directly to the root zone of plants.  
2) Sprinkler irrigation distributes water in the form of droplets similar to rainfall.  
3) Modern irrigation methods help reduce water wastage.  
4) Drip irrigation is mainly used in areas where water is abundant.

**Ans. 3**

67. Consider the following statements about the Testes:

- 1) They produce sperm cells.  
2) They secrete the hormone testosterone.  
3) They are located inside the abdominal cavity.  
4) They are present inside the scrotum.

How many statements are correct?

**Ans. 3**

68. Consider the following statements are correct about the ovary?

- 1) Ovaries produce ova (egg cells)
- 2) Ovaries secrete the hormones estrogen and progesterone
- 3) Ovaries are present inside the scrotum
- 4) Ovaries are located in the pelvic cavity

**Ans. 3**

69. Consider the following statements about synapse:

- 1) Impulse transmission across synapse is unidirectional
- 2) Neurotransmitters are released from postsynaptic membrane
- 3) Calcium ions play a role in neurotransmitter release.
- 4) Electrical impulse is converted into chemical signal at synapse.

How many statements are correct?

**Ans. 3**

70. Four statements are given below about meristematic tissue. How many of them are correct?

- 1) Meristematic tissue is responsible for the growth of plants.
- 2) Cells of meristematic tissue are large with prominent vacuoles
- 3) Apical meristems help in the increase of length of the plant.
- 4) Lateral meristems help in the increase of girth (thickness) of the plant

**Ans. 3**

71. Four statements are given below about a plant cell. How many of them are correct?

- 1) Plant cells have a rigid cell wall made of cellulose.
- 2) Plant cells lack a nucleus.
- 3) Chloroplasts in plant cells help in photosynthesis.
- 4) Vacuoles in plant cells store water and nutrients

**Ans. 3**

72. Consider the following statements
- 1) The cerebellum is located below the cerebrum
  - 2) The medulla oblongata connects the brain to the spinal cord
  - 3) The cerebrum controls involuntary activities like heartbeat
  - 4) The cerebellum helps in posture and balance
- How many statements are correct?

**Ans. 3**

73. Consider the following statements.
- 1) Veins carry blood away from the heart
  - 2) Arteries carry blood towards the heart
  - 3) Capillaries are the smallest blood vessels
  - 4) Arteries have thick muscular walls
  - 5) Veins have valves to prevent backflow of blood
  - 6) Capillaries have thick walls
- How many statements are correct?

**Ans. 3**

74. Consider the following statements.
- 1) Pulmonary circulation occurs between heart and lungs
  - 2) Systemic circulation occurs between heart and body
  - 3) Humans show single circulation
  - 4) In double circulation, blood passes through the heart twice in one cycle
  - 5) Pulmonary artery carries oxygenated blood
  - 6) Pulmonary vein carries oxygenated blood
- How many statements are correct ?

**Ans. 4**

75. How many cranial nerves arise from the brain?

**Ans. 12 or 24**



## P + C + B :- Key with Hints

1	3	26	2	51	3
2	3	27	1	52	4
3	4	28	4	53	2
4	2	29	4	54	3
5	4	30	1	55	1
6	1	31	2	56	2
7	4	32	3	57	4
8	1	33	2	58	2
9	3	34	4	59	1
10	2	35	4	60	3
11	3	36	3	61	2
12	4	37	4	62	1
13	1	38	4	63	3
14	1	39	3	64	1
15	1	40	3	65	1
16	400	41	56	66	3
17	50	42	3	67	3
18	90	43	8	68	3
19	2	44	4	69	3
20	4	45	1	70	3
21	5	46	4	71	3
22	20	47	3	72	3
23	60°	48	44	73	3
24	15	49	3	74	4
25	10	50	2	75	12 or 24

## P + C + B : - Key with Hints

1	4	26	1	51	1
2	1	27	2	52	2
3	4	28	3	53	4
4	1	29	2	54	2
5	1	30	4	55	3
6	1	31	3	56	1
7	1	32	3	57	1
8	3	33	2	58	3
9	3	34	1	59	4
10	4	35	4	60	2
11	2	36	4	61	3
12	3	37	4	62	1
13	2	38	4	63	3
14	3	39	3	64	2
15	4	40	4	65	1
16	2	41	4	66	3
17	4	42	1	67	3
18	60°	43	44	68	3
19	15	44	3	69	4
20	10	45	2	70	12 or 24
21	400	46	56	71	3
22	50	47	3	72	3
23	90	48	8	73	3
24	5	49	4	74	3
25	20	50	3	75	3

1. 3
2. 4
3. 2
4. 3
5. 1
6. 2
7. 4
8. 2
9. 1
10. 3
11. 2
12. 1
13. 3
14. 1
15. 1
16. 3
17. 3
18. 3
19. 3
20. 3
21. 3
22. 3
23. 3
24. 4
25. 12 or 24

**BIOLOGY**

1. 1
2. 2
3. 4
4. 2
5. 3
6. 1
7. 1
8. 3
9. 4
10. 2
11. 3
12. 1
13. 3
14. 2
15. 1
16. 3
17. 3
18. 3
19. 4
20. 12 or 24
21. 3
22. 3
23. 3
24. 3
25. 3