



2022-23

ALL INDIA SCIENCE CHALLENGE EXAM
(AISCE)

Name of the Student : _____ Roll No.:

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Name of the School : _____ Date : _____
Class : _____ Subject: Science Time: 60 Min

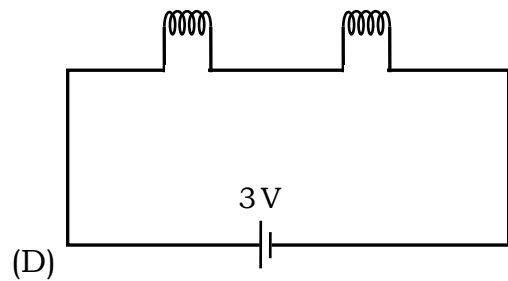
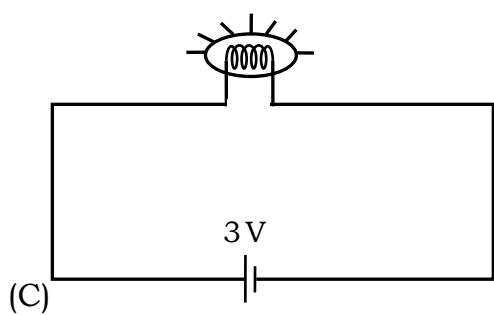
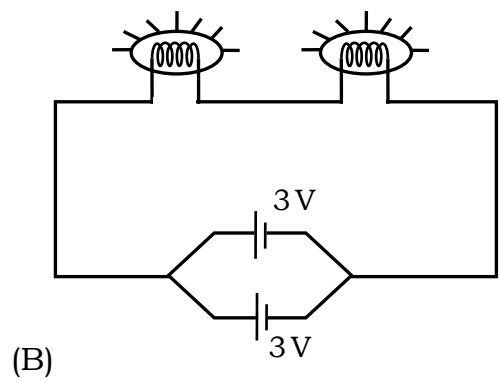
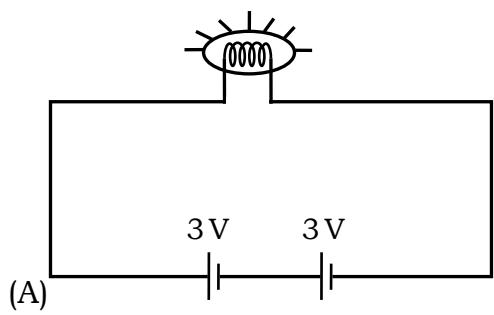
Instructions to the Candidate

1. Each question carries 1 mark. There is no negative marking.
2. Separate Optical Mark Reader (OMR) Answer Sheet is supplied to you along with question paper booklet.
3. Read the questions carefully and fill in the circle corresponding to your answer. Fill in the circle Completely.
4. Rough work should be done only in the space provided in the Question Paper Booklet.
5. Return the OMR Answer sheet to the invigilator before leaving the examination hall.
6. You can carry the question paper with you after completing the examination.
7. Once you enter the examination hall, you are not permitted to leave till the end of the examination.

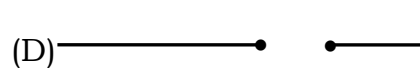
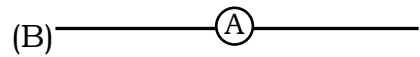
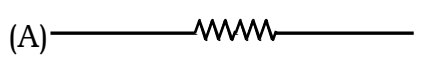
VII Class Science

1. A device used to measure the distance moved by a vehicle
(A) odometer (B) speedometer (C) ammeter (D) Both (A) and (B)
2. The value of 2 km/hr is equal to ____
(A) $\frac{4}{9}$ m/sec (B) $\frac{5}{9}$ m/sec (C) $\frac{13}{9}$ m/sec (D) $\frac{7}{9}$ m/sec
3. Physical quantity which we can't obtain from a distance – time graph is
(A) speed (B) time taken
(C) change in weight (D) change in position
4. If the displacement of a particle is zero, distance covered by it
(A) Must be zero (B) may (or) may not be zero
(C) is negative (D) is always zero

5. In which of the following circuit will the bulb (or) bulbs glow brightest?



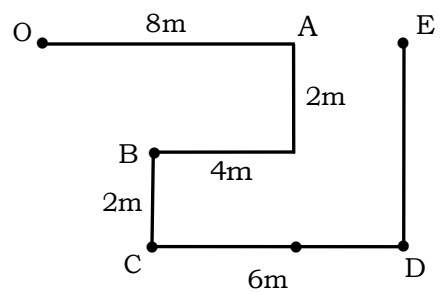
6. Which of the following is symbol of a resistor



7. Type of mirror that is used as a rear – view mirror in case of vehicles is

- (A) concave mirror
- (B) convex mirror
- (C) plane mirror
- (D) All of these

8. The distance travelled by the particle in the following figure is

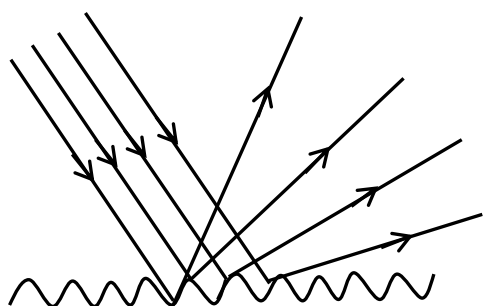


- (A) 400 cm
- (B) 20 m
- (C) 26 m
- (D) 200 cm

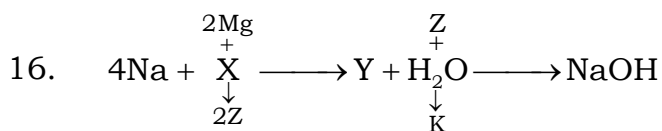
9. The speed of a body can never be

- (A) Negative
- (B) Positive
- (C) Zero
- (D) Both (B) and (C)

10. Heat always flows from
 (A) Higher temperature to lower temperature
 (B) Lower temperature to higher temperature
 (C) Sometimes higher to lower and lower to higher temperature
 (D) Both (A) and (C)
11. Scales show same reading?
 (A) -40°F (B) -48°C (C) -30°C (D) -40°C
12. The maximum and minimum temperature of a day are measured with a ____
 (A) Celsius thermometer (B) Fahrenheit thermometer
 (C) Maximum - minimum thermometer
 (D) Kelvin thermometer
13. The process by which heat comes from sun to the earth is ____
 (A) Conduction (B) Convection (C) Radiation (D) Vaporization
14. A 1k rise in temperature is
 (A) the same as 1°C rise in temperature
 (B) the same as a 1°F rise in temperature
 (C) more than a 1°C rise in temperature
 (D) less than a 1°F rise in temperature
15. The given picture shows



- (A) Regular reflection (B) Irregular reflection
 (C) equal reflection (D) more equal reflection



Identify X, Y, Z and K

- | | X | Y | Z | K |
|-----|----------------------|-------------------------|--------------------------|--------------------------|
| (A) | H_2O | O_2 | MgO | $\text{Mg}(\text{OH})_2$ |
| (B) | O_2 | Na_2O_2 | MgO | MgO |
| (C) | O_2 | Na_2O | MgO | $\text{Mg}(\text{OH})_2$ |
| (D) | H_2O | O_2 | $\text{Mg}(\text{OH})_2$ | MgO |

17. A student puts one big Iron nail in four test tubes containing solutions of zinc sulphate, aluminium sulphate, copper sulphate and iron sulphate. A reddish brown coating was observed only on the surface of iron nail which was put in the solution of
- (A) ZnSO_4 (B) FeSO_4 (C) CuSO_4 (D) $\text{Al}_2(\text{SO}_4)_3$
18. Which of the following observation is not correct about the given equation:
 $\text{Pb}(\text{NO}_3)_2(\text{aq}) + 2\text{KI}(\text{aq}) \longrightarrow \text{PbI}_2(\text{s}) + 2\text{KNO}_3(\text{aq})$
- (A) PbI_2 is yellow precipitate insoluble in water
 (B) It is precipitation reaction
 (C) It is single displacement reaction
 (D) It is very fast reaction.
19. Which of the following is an exothermic process
- (i) Reaction of water with CaO (ii) Dilution of acid
 (iii) Evaporation of water (iv) Sublimation of camphor
- (A) (i) & (ii) (B) (ii) & (iii) (C) (iii) & (iv) (D) (i) & (iv)
20. Atom is electrically neutral because of
- (A) The presence of protons (B) The presence of neutrons
 (C) The presence of equal number of protons and electrons
 (D) The presence of equal number of protons and neutrons
21. Statement-I: Burning of LPG is a chemical change.
 Statement-II: LPG burns with pale blue flame and liberates colourless carbon dioxide gas which can be converted back to LPG
- (A) Both statements are true, statement II is correct explanation of I
 (B) Both statements are true, statement II is not correct explanation of I
 (C) Statement-I true, statement-II is false
 (D) Statement-I false, statement-II is true
22. How many of the following physical change?
- (i) Respiration by humans, plants and animals
 (ii) Blackening of silver ware
 (iii) Beating of metal into sheets and wires
 (iv) Crystallisation of salt from their solutions
 (v) Curdling of milk
 (vi) Magnetization of iron
- (A) 3 (B) 6 (C) 4 (D) 2

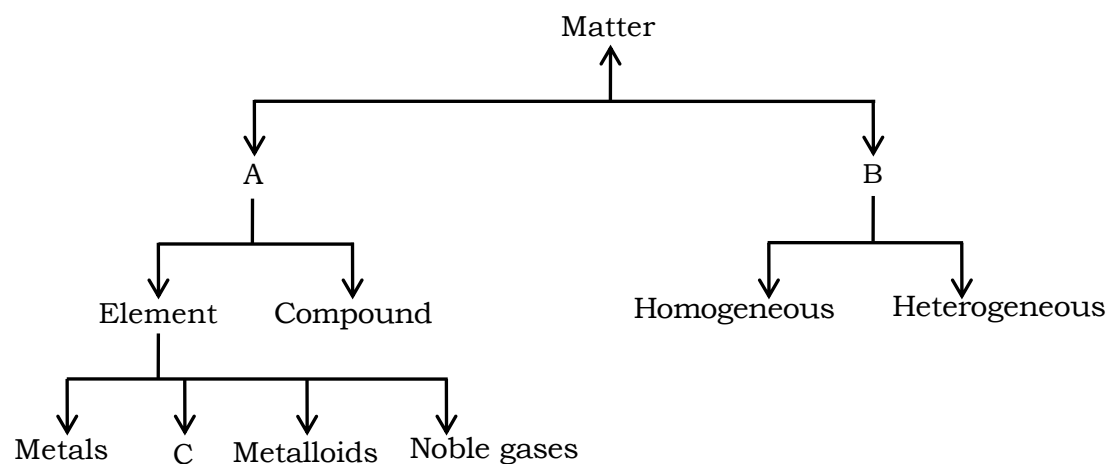
23. Chemical formula for sodium sulphate is Na_2SO_4 . The formula for trivalent metal sulphate will be

- (A) M_2SO_4 (B) $\text{M}(\text{SO}_4)_2$ (C) $\text{M}_3(\text{SO}_4)_2$ (D) $\text{M}_2(\text{SO}_4)_3$

24. Superoxide ion is

- (A) O_2^{2-} (B) O^{-2} (C) O_2^- (D) O_2

25.



- (A) A → pure substance B → Non metals C → Mixtures
 (B) A → Mixtures B → pure substance C → Non-metals
 (C) A → pure substance B → Mixture C → Non-Metals
 (D) A → Non-metals B → Mixtures C → pure substance

26. The correct statements of the following

- (i) Gases exert pressure in all directions
 (ii) The density of liquids relatively more than solids
 (iii) Solids do not expands on heating
 (iv) Gases have no free surfaces
 (v) Liquids gets converted to a solid is known as liquification

- (A) (i), (iii) & (v) (B) (i), (ii), (iv) & (v)
 (C) (i), (iii) & (iv) (D) (i) & (iv)

27. Identify which of the following tetra atomic element

- (A) Boron (B) sulphur (C) ozone (D) phosphorus

28. Taj Mahal, Lotus Temple, Golden Temple, Indian Gate and other famous heritage monuments are being affected by air pollution. Which of the following agents is responsible for turning Taj Mahal yellow?

- (A) Sulphur (B) Chlorine
 (C) Sulphur dioxide (D) Nitrogen dioxide

29. The number of protons of an atom is

- (A) atomic number (B) mass number
(C) Both A & B (D) None of these
30. An arrow in a chemical reaction pointing towards
(A) Reactants (B) Products (C) Catalyst (D) None of these
31. Which of the following is not a fibre?
(A) Nylon (B) Cotton (C) Wool (D) Paper
32. Identify the wrong statement among the following
(A) Food chain show the flow of energy from one level to other
(B) Food web is inter connected network of food chains.
(C) A group of food chains is food web
(D) Food chain always start with a producer.
33. Which of these are obtained from forests?
(I) Timber (II) Paints and varnishes
(III) Rubber (IV) Medicine
Identify the correct combination
(A) All except III (B) All except II
(C) All except I (D) All I to IV
34. Dialysis is used when _____ is damaged
(A) Kidney (B) Liver (C) Gallbladder (D) urinary bladder
35. Stomata has following functions in plants
(A) Releases oxygen (B) Releases carbon dioxide
(C) Releases water (D) All the above
36. Dispersal by water is seen in
(A) Coconut (B) Mango (C) Lilly (D) Both (A) & (C)
37. Cross pollination means:
(A) Transfer of pollen grains from anther to stigma of same flower from same plant.
(B) Transfer of pollen grains from anther to stigma of another flower of same plant
(C) Transfer of pollen grains from anther to stigma of another flower of another plant of same type
(D) Both (B) & (C)
38. Identify true statement:
(A) Oral cavity is also called food pipe
(B) Water and minerals are absorbed in small intestine
(C) Digestion ends in small intestine
(D) Both (B) & (C).
39. Find the correct match
(A) Earth worm - Gills (B) Fishes - skin
(C) Snake - Lungs (D) Insect - Lungs
40. Which part of respiratory system is considered as voice box?
(A) Trachea (B) Pharynx (C) Larynx (D) Epiglottis