Top 77 MCQs

Class 10th - Science

MCQs

TOP 77

1. Generally metals react with acids to give salt and hydrogen gas. Which of the following acids does not give hydrogen gas on reacting with metals (except Mn and Mg)?

a) H_2SO_4
b) HNO_3
c) HCl
d) All of these

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2. The contraction and expansion movement of the walls of the food pipe is called:

a) Transpiration
b) Translocation
c) Digestion
d) Peristaltic movement

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3. Which of the following properties is not generally exhibited by ionic compounds?

a) High melting and boiling points
b) Solubility in water
c) Electrical conductivity in solid state
d) Electrical conductivity in molten state

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4. What are the products obtained by anaerobic respiration in plants?

a) Pyruvate
b) Carbon dioxide + water + energy
c) Ethanol + carbon dioxide + energy
d) Lactic acid + energy

TOP 77

5. Which of the following is the wrong statement.
Consumption of alcohol results in:

a) Mental confusion
b) Drowsiness
c) Gaining energy
d) Lack of coordination

TOP 77

6. The respiratory pigment in human beings is:

a) Mitochondria
b) Haemoglobin
c) Chlorophyll
d) Carotene

TOP 77

7. A molecule of ammonia (NH_3) has

a) Only double bonds
b) Only triple bonds
c) Only single bonds
d) Two double bonds and a single bond

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8. The opening and closing of the stomatal pore depend upon:

a) Oxygen
b) Temperature
c) Water in the guard cells
d) Concentration of CO_2

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9. Which one of the following processes involve chemical reactions?

a) Keeping petrol in a china dish in the open
b) Storing of oxygen gas under pressure in a gas cylinder
c) Liquefaction of air
d) Heating copper wire in presence of air at high temperature

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10. Which among the following is (are) double displacement reaction?

a) $Pb + CuCl_2 \rightarrow PbCl_2 + Cu$

b) $Na2SO_4 + BaCl_2 \rightarrow BaSO_4 + 2NaCl$

c) $C + O \rightarrow CO_2$

d) $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

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11. What is the function of pituitary gland?

a) To stimulate growth in all organs
b) To develop sex organs in males
c) To regulate sugar and salt levels in the body
d) To initiate metabolism in the body

TOP 77

12. A student is testing water to know which is best for cleansing purpose with soaps. He would find that the cleansing action of soaps is best when he uses water obtained from:

a) Tap
b) Rain
c) Hand pump
d) Pond

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13. A female is suffering from an irregular menstrual cycle. The doctor prescribed her some hormonal tablets. Which option shows that the hormone she lacks in her body is from the endocrine gland?

a) Oestrogen
b) Adrenalin
c) Thyroxin
d) Testosterone

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14. One of the constitute of baking powder is sodium hydrogen carbonate, the other constitute is:

a) Acetic acid
b) Hydrochloric acid
c) Tartaric acid
d) Sulphuric acid

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15. How will information travel within a neuron?

a) Dendrite → cell body → axon → nerve ending
b) Axon → dendrite → cell body → nerve ending
c) Dendrite → axon → cell body → nerve ending
d) Axon → cell body → dendrite → nerve ending

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16. A solution turns red litmus blue, its pH is likely to be

a) 1

b) 10

c) 5

d) 4

TOP 77

17. Which part of the brain control blood pressure?

a) Spinal cord, skull, hypothalamus
b) Pons, medulla, cerebellum
c) Pons, medulla, pituitary
d) Cord, skull, cerebrum

TOP 77

18. Which metal is displaced when lead is put in the solution of copper chloride and silver chloride?

a) Lead
b) Copper
c) Silver
d) Copper and silver both

TOP 77

19. Fruits are formed from the

a) Stamen
b) Stigma
c) Ovary
d) Ovule

TOP 77

20. Which of the following metal is protected by a layer of its oxide?

a) Copper
b) Aluminium
c) Sodium
d) Iron

TOP 77

21. Which of the following diseases is transmitted sexually?

a) Kala Azar
b) Jaundice
c) Cholera
d) Syphilis

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22. What is the chemical name for chloride of lime?

a) Calcium oxide
b) Sodium hydroxide
c) Calcium hydroxide
d) Calcium oxychloride

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23. Which among the following is not the functions of the testes at puberty?

1. Formation of germ cells
2. Secretion of testosterone
3. Development of placenta
4. Secretion of estrogen

a) 1 and 2
b) 2 and 3
c) 3 and 4
d) 1 and 4

TOP 77

24. The light from a distant object on passing through the convex lens (f-focal length):

a) Converges at 2f
b) Appears to diverge from focus
c) Converges at focus f
d) Appears to diverge from 2f

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25. The correct sequence of organs in the male reproductive for the transport of sperm is

a) Testis → vas deferens → urethra
b) Testis → ureter → urethra
c) Testis → urethra → ureter
d) Testis → vas deferens → ureter

TOP 77

26. During adolescence, several change occur in the human body. Mark one change from the following associated with sexual maturation in boys

a) Increase in height
b) Cracking of voice
c) Weight gain
d) Loss of milk teeth

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27. What does the tangent at any point on magnetic field lines indicate?

a) Direction of the force
b) Direction of current
c) Direction of induced current
d) Direction of magnetic field

TOP 77

28. The process in which small portions of the oviduct of a woman are removed by surgical operation, and the cut ends are ligated is

a) Copper T
b) Tubectomy
c) Vasectomy
d) Diaphragm

TOP 77

29. Which of the following terms does not represent electrical power in a circuit?

a) V^2/R

b) VI

c) IR^2

d) I^2R

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30. The ratio of the number of chromosomes in a human zygote and a human sperm is:

a) 2:1
b) 1:2
c) 3:1
d) 1:3

TOP 77

31. If the charge on an electron is 1.6×10^{-19} coulombs, how many electrons should pass through a conductor in 1 second to constitute 1 ampere current?

a) 6.25×10^{18}
b) 6.35×10^{18}
c) 6.25×10^{19}
d) None of these

TOP 77

32. Which one of the following character can be acquired but not inherited?

a) Colour of eyes
b) Colour of skin
c) Texture of hair
d) Size of body

TOP 77

33. What is the maximum power in kilowatts of the appliance that can be connected safely to a 13A, 230V mains socket?

a) 2.95 kW
b) 2.99 kW
c) 2.97 kW
d) None of these

TOP 77

34. In pea plants, yellow seeds are dominant to green seeds. If a heterozygous yellow-seeded plant is crossed with a green-seeded plant, what ratio of yellow and green-seeded plants would you expect in the F1 generation

a) 9:1
b) 3:1
c) 1:3
d) 50:50

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35. A ray of light is incident on a glass slab at an angle of incidence of 60 degree. If the angle of refraction be 32.7 degree. What will ne refractive index of glass assuming sin 60° = 0.866 and sin32.7° = 540?

a) 1.603
b) 1.540
c) 1.327
d) None of these

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36. The two versions of a trait(character which are bought in by the male and female gametes are situated on:

a) Copies of the same (homologous) chromosomes
b) Two different chromosomes
c) Sex chromosome
d) Any chromosomes

TOP 77

37. How much energy does a 100W electric bulb transfer in 1 minute?

a) 100 J
b) 6000 J
c) 3600 J
d) 600 J

TOP 77

38. The driving force of any ecosystem is:

a) Carbohydrates
b) Solar energy
c) Biomass
d) ATP

TOP 77

39. An electron beam is moving vertically upwards if it passes through a magnetic field which is directed from south to north in a horizontal plane then in which direction will the beam deflected.

a) Towards north
b) Towards south
c) Towards west
d) Towards east

TOP 77

40. Which one of the following is a linear arrangement of organisms?

a) Food chain
b) Food web
c) Trophic levels
d) Community

TOP 77

41. The lens of focal length ‘f’ is cut into two equal parts along principal axis. The two pieces will have equal focal length of

a) f/2
b) f
c) f/3
d) 2f

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42. $Fe_2O_3 + 2Al \rightarrow Al_2O_3 + 2Fe$

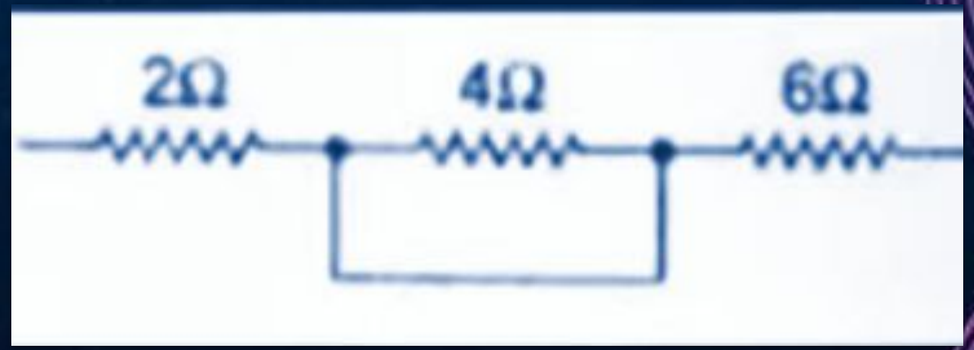
The above reaction is an example of a

a) Combination reaction
b) double displacement reaction
c) decomposition reaction
d) displacement reaction

TOP 77

43. Rohan connected three resistors as shown below to find the equivalent resistance in resistance in series. The value measured by him should be close to

a) 12 Ω
b) 8 Ω
c) 15 Ω
d) 10 Ω



TOP 77

44. The number of carbon-carbon bonds and carbon-hydrogen bonds in propane are:

a) 2 and 8 respectively
b) 8 and 2 respectively
c) 3 and 8 respectively
d) 8 and 3 respectively

TOP 77

45. In our domestic electric supply we use following three colors of wire.

a) Red, black, green
b) Red, black, blue
c) Red, blue, green
d) Black, green, yellow

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46. Which among the following statement(s) is are true? Exposure of silver chloride to sunlight for a long duration turns grey due to

1. The formation of silver chloride by decomposition of silver chloride
2. Sublimation of silver chloride
3. Combination reaction
4. Oxidation of silver chloride

a) 1 only

b) 1 and 3

c) 2 and 3

d) 4 only

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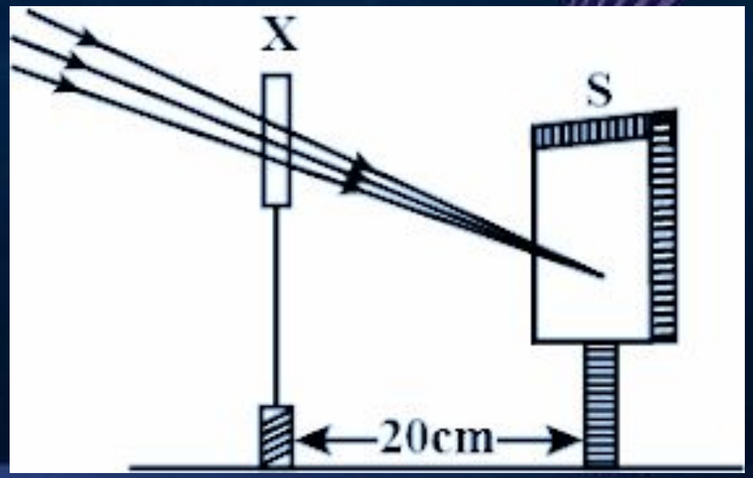
47. A student focused the sun rays using an optical device ‘X” on a screen as shown. From this it may be concluded that the device ‘X’ is a (select the correct option)

a) Convex lens of focal length 10cm.
b) Convex lens o radius of curvature 20cm
c) Convex lens of focal length 20cm
d) Convex mirror of focal length 20cm



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48. Which of the following is (are) and endothermic process(es)

1. Dilution of sulphuric acid
2. Sublimation of dry ice
3. Condensation of water vapours
4. Evaporation of water

a) 1 and 3
b) 2 only
c) 3 only
d) 2 and 4

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49. Alcohol produces:

a) Non-luminous flame
b) Luminous flame
c) Sooty flame
d) Smoky flame

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50. Which of the following are combination reactions?

1. $2KClO_3 \rightarrow 2KCl + 3O_2$
2. $MgO + H_2O \rightarrow Mg(OH)_2$
3. $4Al + 3O_2 \rightarrow 2Al_2O_3$
4. $Zn + FeSO_4 \rightarrow ZnSO_4 + Fe$

a) 1 and 3

b) 3 and 4

c) 2 and 4

d) 2 and 3

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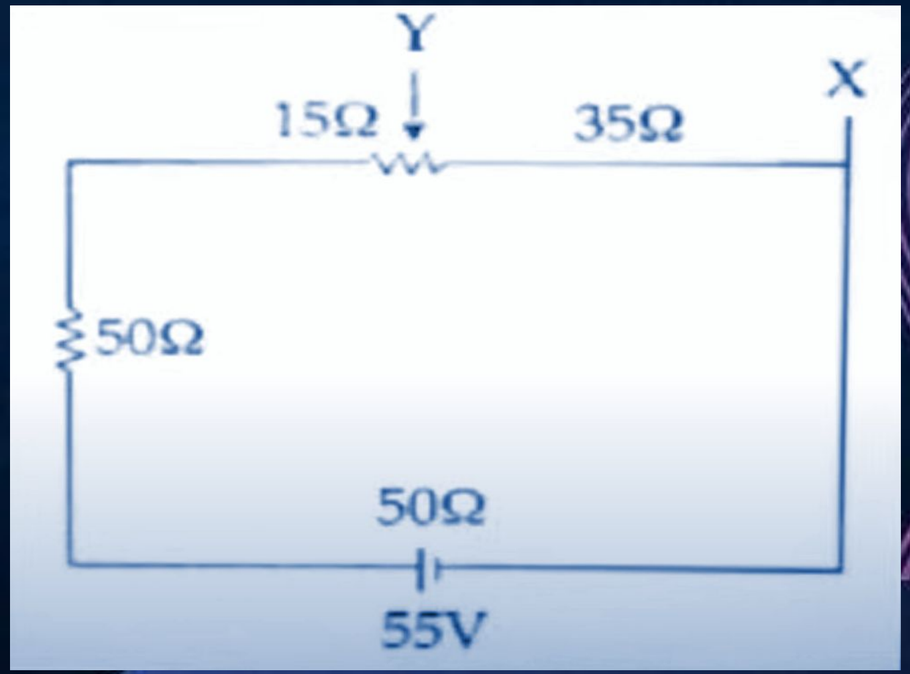
51. From the shown figure, XY has a resistance of 35 Ω, the potential difference across XY will be equal

a) 10.01 V
b) 12.83 V
c) 13.44 V
d) 14.67 V



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52. When you add a few drops of acetic acid to a test-tube containing sodium bicarbonate powder, which one of the following is your observation?

a) No reaction takes place
b) A colourless gas with pungent smell with brisk effervescence
c) A brown coloured gas is released with brisk effervescence
d) Formation of bubbles of a colourless and odourless gas

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53. The reaction between calcium oxide and water is:

a) Combination reaction
b) Displacement reaction
c) Decomposition reaction
d) Double-displacement reaction

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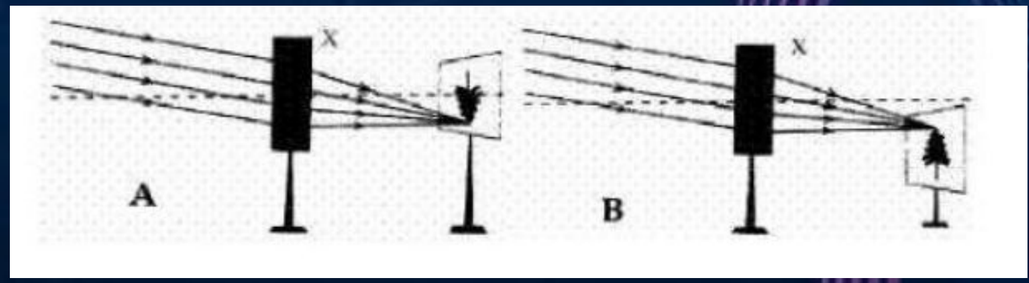
54. Parallel rays, from a distant tree, incident on the device X, from its distinct image on a screen as shown. The diagram, correctly showing the image of the tree on the screen, is diagram.

a) A and the device X is a concave mirror
b) A and the device X is a convex lens
c) B and the device X is a convex lens
d) A and the device X is a concave mirror



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55. The component of chromosome that controls heredity is

a) Histones
b) Proteins
c) RNA
d) DNA

TOP 77

56. When iron nail is placed in copper sulphate solution for a few hours the blue colour of solution will

a) Remain blue
b) Changes to green
c) Changes to pink
d) Changes to odourless

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57. Which of the following component of our food is digested by an enzyme which is present in saliva as well as in pancreatic juice?

a) Minerals
b) Proteins
c) Carbohydrates
d) Fats

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58. In vegetative reproduction, the new individuals are genetically:

a) Better than original
b) Abnormal
c) Similar
d) Dissimilar

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59. Syphilis is caused by

a) Mosquito
b) Parasite
c) Virus
d) Bacteria

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60. You are given water, mustard oil, glycerine and kerosene. In which of these media a ray of light incident obliquely at same angle would bend the most?

a) Glycerine
b) Kerosene
c) Water
d) Mustard oil

Assertion & Reason

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61.

Assertion (A): Blood clotting prevents excessive loss of blood.

Reason (R): Blood clotting is due to blood plasma and white blood cells present in the blood.

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62.

Assertion (A): The strength of the magnetic field produced at the centre of a current carrying coil increases on increasing the number of turns in it.

Reason (R): The current in each circular turn has the same direction and the magnetic field due to each turn then just adds up.

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63.

Assertion (A): Left atrium receives oxygenated blood from pulmonary vein.

Reason (R): Right atrium transfers deoxygenated blood to the right

TOP 77

64.

Assertion (A): Sodium oxide is an amphoteric oxide.

Reason (R): Metal oxides which react with both acids as well as bases are known as amphoteric oxides.

TOP 77

65.

Assertion (A): A person suffering from myopia cannot see the distant objects clearly.

Reason (R): A converging lens is used for the correction of myopic eye as it can form real as well as virtual images of the objects placed in front of it.

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66.

Assertion (A): Magnetic field lines do not intersect each other.

Reason (R): Magnetic field lines are imaginary lines, the tangent to which are any point gives the direction of the field at that point.

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67.

Assertion (A): Sodium, calcium and magnesium are obtained by the electrolysis of their molten oxides.

Reason (R): These metals have more affinity for oxygen than carbon.

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68.

Assertion (A): The angle through which a ray of light bends on passing through a prism is called the angle of deviation.

Reason (R): The peculiar shape of a prism makes emergent ray bend at an angle to the direction of the incident ray.

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69.

Assertion (A): Reaction of quicklime with water is an exothermic reaction.

Reason (R): Quicklime reacts vigorously with water releasing a large amount of heat.

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70.

Assertion (A): The inner walls of the small intestine have finger like projections called villi which are rich in blood.

Reason (R): These villi have a large surface area to help the small intestine in completing the digestion of food.

TOP 77

71.

Assertion (A): A current carrying straight conductor experiences a force when placed perpendicular to the direction of magnetic field.

Reason (R): The net charge on a current carrying conductor is always zero.

TOP 77

72.

Assertion (A): In the following reaction: $ZnO + C \rightarrow Zn + Co$, ZnO undergoes reduction.

Reason (R): Carbon is a reducing agent that reduces ZnO to Zn.

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73.

Assertion (A): Human populations show a great deal of variations in traits.

Reason (R): All variations in a species have equal chances of surviving in the environment in which they live.

TOP 77

74.

Assertion (A): The walls of atria are thicker than those of the ventricles.

Reason (R): Ventricles have to pump blood into various organs at high pressure.

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75.

Assertion (A): It is advised that while diluting an acid, one should add water to acid and not acid to water keeping the solution continuously stirred.

Reason (R): The process of dissolving an acid is highly exothermic.

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76.

Assertion (A): The energy which passes to the herbivores does not come back to autotrophs.

Reason (R): The flow of energy in a food chain is unidirectional.

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77.

Assertion (A): Testes in human males are located outside the abdominal cavity in scrotum.

Reason (R): Scrotum provides a lower temperature than the normal body temperature for sperm formation.

THANK YOU ✦