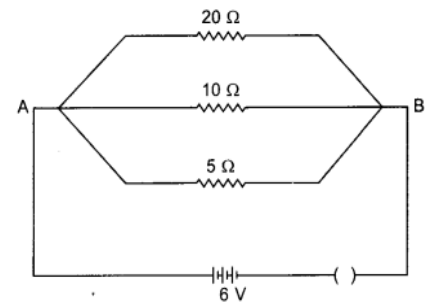


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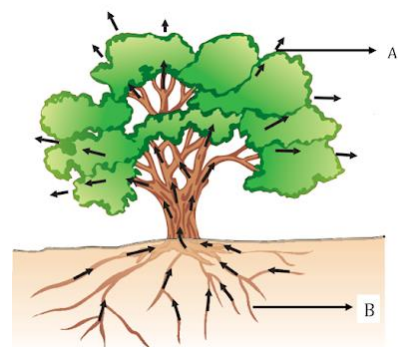
SCIENCE MODEL PAPER-1 (2020-21) MCQ PATTERN

Four choices are given for each of the questions/incomplete statements. Choose the correct answer and shade the correct choice in the OMR given to you with blue / black ball point pen :

- 41) Velocity of light in vacuum is 3×10^8 ms⁻¹. If the velocity of light in a medium is 2×10^8 ms⁻¹, what is the refractive index of the medium?
A) 6 B) 5 C) 2.5 D) 1.5
- 42) The radius of curvature of a convex lens is 30cm. Its focal length is :
A) 45cm B) 30cm C) 15cm D) 7.5cm
- 43) A convex lens has a focal length of 10cm. At what distance from the lens should be an object be placed to get an image at a distance of 20cm from the lens on the other side of it?
A) 10cm B) 20cm C) 30cm D) 60cm
- 44) If the focal length of a lens is 0.25m, its power will be :
A) 1D B) 2D C) 3D D) 4D
- 45) Consider the following statements on connecting ammeter and voltmeter in an electric circuit and identify the correct one :
A) Ammeter is connected in series and Voltmeter is in parallel
B) Voltmeter is connected in series and Ammeter is connected in parallel
C) Both Ammeter and Voltmeter are connected in series
D) Both Ammeter and Voltmeter are connected in parallel
- 46) If 1800 coulomb electric charges pass through an electric device in 10minutes, then the electric current through the circuit is :
A) 1.5A B) 3A C) 18A D) 180A
- 47) If a resistor of resistance 40 produce 1000J of heat energy, the potential difference between the two of the resistor is :
A) 25V B) 100V C) 150V D) 200V
- 48) Calculate the current flows through the 10 Ω resistor in the following circuit :
A) 1.2 A B) 0.6 A
C) 0.2 A D) 2.0 A
- 49) To get 2 Ω resistance using only 6 Ω resistors, the number of them required is :
A) 2 B) 3
C) 4 D) 6
- 50) The magnetic needle brought near a conductor carrying current :
A) remains stationary B) deflects
C) does not deflect D) becomes non magnetic
- 51) The magnetic field lines inside a solenoid carrying current are :
A) Curved loops B) From north to south
C) Parallel straight lines D) Concentric circles
- 52) The safety device in a domestic circuit is :
A) Switch B) Rheostat C) Fuse D) Electricity meter
- 53) Major constituent of biogas :
A) Butane B) Hydrogen C) Methane D) Carbon dioxide
- 54) Which of these is a renewable energy source?
A) Coal B) Petroleum C) Natural Gas D) Solar Energy



- 55) A blue litmus paper is dipped first in dilute HCl solution followed by dilute NaOH solution. The change observed in the litmus paper is :
- A) Changed to red
B) First changed to red and then to blue
C) Blue to Colorless
D) Remain blue colour in both the solutions
- 56) The equation which represents neutralization reaction is :
- A) $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$
B) $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$
C) $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
D) $\text{CaO} + \text{CO}_2 \rightarrow \text{CaCO}_3$
- 57) Calcium hydroxyapatite is present in tooth enamel. Its nature is :
- A) Acidic
B) Basic
C) Amphoteric
D) Neutral
- 58) The metallic oxide which do not form alkali :
- A) Na_2O
B) CaO
C) K_2O
D) CuO
- 59) Element X loses one electron, element Y gains one electron and forms the compound XY. Which of the following is the property of the compound ?
- A) Brittle in nature
B) Possess low melting point.
C) Soluble in water
D) Bad conductor of electricity in its solid state
- 60) Silver articles become black after some time when exposed to air. This is due to the formation of a coating of :
- A) Silver oxide
B) Silver carbonate
C) Silver sulphide
D) Silver sulphate
- 61) The bond that Carbon forms with most other elements are very strong, because :
- A) Carbon forms ionic bond with other elements
B) Small size of carbon atom
C) The larger the size of the carbon
D) Carbon forms covalent bond with other elements
- 62) The functional group in Propanol is :
- A) Aldehyde
B) Alcohol
C) Ketone
D) Carboxylic Acid
- 63) Molecular formula of a compound is C_6H_{12} . The formula of the next member of this homologous series is :
- A) C_4H_{10}
B) C_6H_{14}
C) C_7H_{14}
D) C_6H_6
- 64) The process of unsaturated hydrocarbons add hydrogen in the presence of catalyst such as palladium or nickel to give saturated hydro carbon is :
- A) Combustion
B) Oxidation
C) Substitution reaction
D) Addition reaction
- 65) Identify the incorrect statement about the trends when going from left to right across the periods of Periodic Table :
- A) The elements become less metallic in nature.
B) The number of valence electrons increases.
C) The atoms lose their electrons more easily.
D) The oxides become more acidic
- 66) Mendeleev treated the formulae of these compounds formed by an element as one of the basic properties of an element for its classification :
- A) Hydrides and Oxides
B) Oxides and Chlorides
C) Hydrides and Sulphates
D) Sulphides and Nitrates
- 67) The body temperature of these animals depends on the temperature in the environment :
- A) Frogs & Birds
B) Birds & Rabbits
C) Lizards & Humans
D) Frogs and Lizards
- 68) Identify the two forces during the movement of water from roots to the aerial parts, acting on the points A and B :
- A) A- Transpiration pull, B-Active Transport
B) A-Root Pressure, B-Transpiration pull
C) A-Suction, B-Root Pressure
D) A-Evaporation, B-Translocation



- 69) A significant decrease in blood pressure affects the normal functioning of the kidneys as follows: *
- A) Increases pressure in Urinary bladder B) Reduces the Glomerular filtration
C) More water is reabsorbed. D) Increases the tubular secretion
- 70) In a synapse, chemical signal is transmitted from :
- A) Dendrite of one neuron to Axonal end of other neuron
B) Axon to Cell body of same neuron
C) Cell body to Axonal end of same neuron
D) Axonal end of one neuron to Dendrite of another neuron
- 71) An example for phototropic movement is :
- A) Ripening of fruit B) Growth of pollen tube C) Growth of stem D) Growth of root
- 72) Choose the incorrect statement about Thyroxin hormone :
- A) Deficiency of Thyroxin causes anaemia B) Thyroxine helps in growth
C) Iodine is required to synthesise thyroxin D) Thyroid gland secretes thyroxine hormone
- 73) The site of embryo implantation in female reproductive system is :
- A) Ovary B) Cervix C) Uterus D) Fallopian tube
- 74) The INCORRECT statement regarding unisexual flowers is :
- A) Flowers possessing only stamens cannot produce fruits
B) They possess either stamen or pistil
C) They exhibit cross pollination
D) They possess both stamen and pistil
- 75) A tall pea plant with round seeds (TTRR) is crossbred with another dwarf pea plant having wrinkled seeds (ttrr). Among the offspring obtained in F₂ generation, plants with which traits were found to be minimum in number ?
- A) Tall plants with round seeds B) Tall plants with wrinkled seeds
C) Dwarf plants with wrinkled seeds D) Dwarf plants with round seeds
- 76) What happens if any change occurs in the reproductive tissues of an organism ?
- A) It will have no effect
B) The changes will be inherited
C) The changes will be restricted to that generation only
D) The organism will not be able to survive
- 77) The tool which is NOT used for tracing evolutionary relationships is :
- A) Excavating B) Time dating C) Studying fossils D) Historical details
- 78) The correct statement with respect to biodegradable substances among the following is ; These substances :
- A) remain inert in the environment for a long time.
B) undergo recycling naturally in the environment.
C) harm various organisms in the ecosystem.
D) increase the density of harmful chemicals in different tropic levels.
- 79) Instead of throwing away used envelopes, reverse it and using it again :
- A) Refuse B) Reduce C) Reuse D) Repurpose
- 80) This is the social problem of building large dams :
- A) displace large number of peasants and tribals B) swallow up huge amounts of public money
C) deforestation D) loss of biological diversity

To attend the quiz click this link :

<https://forms.gle/ofqEC1SLmd5Jzzuz5>



CKG KTS