



ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಜಿಲ್ಲಾ ಪಂಚಾಯತ್

ಸಾರ್ವಜನಿಕ ಶಿಕ್ಷಣ ಇಲಾಖೆ

ಉಪನಿರ್ದೇಶಕರ ಕಛೇರಿ (ಆಡಳಿತ), ಬೆಂಗಳೂರು ಗ್ರಾಮಾಂತರ ಜಿಲ್ಲೆ

ಸ್ಫೂರ್ತಿ

ಬಹುಆಯ್ಕೆ ಮಾದರಿ ಪ್ರಶ್ನೆಗಳು

ಎಸ್.ಎಸ್.ಎಲ್.ಸಿ 2020-21

ವಿಜ್ಞಾನ

(ಆಂಗ್ಲ ಮಾಧ್ಯಮ)

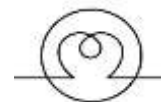


SCIENCE MCQ QUESTION BANK (EM)

PHYSICS: ELECTRICITY

Four alternates are given to each question. Choose the correct answer.

- SI Unit of electric current is
A. volt B. ampere C. ohm meter D. ohm
- The property of the material which obstruct the flow of current is
A. electric power B. resistance
C. electrical potential D. potential difference
- one watt an electric current can also be represented as
A. $1\text{J}/1\text{C}$ B. $1\text{C}/1\text{s}$ C. $1\text{C}/1\text{J}$ D. $1\text{J}/1\text{s}$
- Formula which in a presents Joule's law of heating effect
A. $H = IRt$ B. $H = IR^2t$ C. $H = IRt^2$ D. $H = I^2Rt$
- The property of the fuse wire is
A. having low resistance
B. having high resistance
C. having high resistance and low melting point having
D. high resistance and high melting point
- The rate of current drawn from the bulb having the power 440W which is connected to 220V circuit is.
A. 2A B. 3A C. 4A D. 5A
- Total resistance of the registers having 15 ohm each which are connected in series is
A. $40\ \Omega$ B. $50\ \Omega$ C. $60\ \Omega$ D. $100\ \Omega$
- Name the instrument which is used in electrical circuit
A. Bulb B. Fuse C. Ammeter D. Rheostat
- Which of the following is measured by using an ammeter?
A. Electric power B. potential difference C. electric current D. Resistance



10. Which of the following is the unit of power?
A. Volt B. Kilowatt hour C. Joule D. Newton meter
11. Which of the following is constant in the series connection?
A. Power B. Current C. Potential difference D. Resistance
12. A device used to change the resistance in an electric circuit is
A. ammeter B. rheostat C. galvanometer D. voltmeter
13. The potential difference between the terminals of electric heater is 60V, when it draws a current of 4A from the source. The resistance of electric heater coil is
A. 15 Ω B. 240 Ω C. 24 Ω D. 64 Ω
14. SI Unit of electric resistance is
A. volt B. ampere C. ohm meter D. ohm
15. The resistance of a conductor does NOT depend on
A. length of conductor B. area of cross section of conductor
C. magnetic nature D. nature of the material
16. 'WATT' is an SI unit of
A. electric current B. electric charge C. electric potential difference D. electric power
17. An electric bulb is connected to a 220V generator. If the current flowing in the bulb is 0.50A. The power of the bulb is
A. 44W B. 1100W C. 110W D. 220W
18. The function of ammeter in an electric circuit is, it
A. reverses the direction of the current
B. measures rate of electric current
C. protects electrical appliances
D. measures the potential difference
19. As the electrical resistivity of a substance increases
A. resistance decreases
B. conductivity increases
C. melting point decreases
D. resistance increases

20. Formula used to calculate resistance is

- A. $P=VI$ B. $R= V/I$ C. $R=I/V$ D. $I= R/V$

21. SI Unit of Resistivity is

- A. volt B. ampere C. ohm meter D. ohm

22. SI Unit of electric current is

- A. volt B. ampere C. ohm meter D. ohm

23. Resistance of a conductor decreases with

- A. increase in length B. decrease in area of cross section
C. increase in area of cross section. D. increase in temperature.

24. Product of potential difference and current gives

- A. Current B. Potential difference C. Resistance D. power.

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	B	5	C	9	C	13	A	17	C	21	C
2	B	6	B	10	B	14	D	18	B	22	B
3	D	7	C	11	B	15	C	19	D	23	C
4	D	8	A	12	B	16	D	20	B	24	D

MAGNETIC EFFECTS OF ELECTRIC CURRENT

Four alternates are given to each question. Choose the correct answer.

1) When soft iron is placed inside the solenoid it acts as magnet only when

- A. current passes through soft iron make short circuit
- B. acts as magnet only when current passes through solenoid.
- C. soft iron convert as permanent magnet
- D. There are no changes in soft iron

11) colour of live wire in domestic electric circuit is

- A) red B) yellow C) blue D) green

12) in domestic electric circuit the potential difference between live wire and neutral wire is

- A) 220 volts B) 1000 volts C) 110 volts D) 440 volts

13) Which of the following correctly describes the magnetic field near a long straight wire?

- A. The field consists of straight lines perpendicular to the wire.
B. The field consists of straight lines parallel to the wire.
C. The field consists of radial lines originating from the wire.
D, The field consists of concentric circles centered on the wire

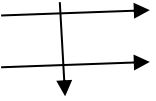
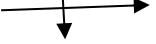
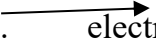
14) The unit of magnetic field strength is

- A)Hertz B)Å volts C) Ampere D) oersted

15) The magnetic field lines is taken by convention that pole (note the arrows marked on the field lines

- A) the field lines emerge from north pole and merge at the south
B) the field lines emerge from south pole and merge at the north
C) the field lines emerge from east and merge at the north
D) the field lines emerge from south pole and merge at west

16) 2)An electron enters a magnetic field at right angles to it, as shown in Fig.. The direction of force acting on the electron will be

- A. to the right.  magnetic field
B. to the left. 
C. out of the page.  electron
D. into the page.

17) A positively charged particles (alpha particle)projected towards west is deflected towards north by magnetic field .The direction of magnetic field is

A) 220 V B) 0 V C) 440 V D) 100 V

25) The current which changes its direction in equal intervals of time is

A) Alternative current B) Direct current C) Static current D) Eddy currents

ANSWER

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	B	5	B	9	A	13	A	17	D	21	B
2	A	6	A	10	B	14	D	18	C	22	A
3	A	7	C	11	A	15	A	19	C	23	C
4	C	8	C	12	A	16	D	20	C	24	B

25.A

LIGHT: REFRACTION.

Four alternates are given to each question. Choose the correct answer.

- The place where the refracted rays from the convex lens meet on the principal axis is
A. optic centre of the lens B. Centre of curvature
C. radius of curvature D. principal focus
- The line passing through the center of the lens and pole is
A. principal focus B. principal axis C. radius of curvature D. focal length
- Transparent material which produces image as same as the object is
A. convex lens B. concave lens C. glass slab D) prism
- Transparent material the converges rays of light is
A. convex lens B. concave lens C. glass slab D. prism

5. A transparent material that diverges rays of light is
A. convex lens B. concave lens C. glass slab D. prism
6. The position where image formed when object is placed in infinity in front of convex lens is
is
A) at F B) between F and C C) beyond C D) at C
7. One of the properties of concave lens is, it
A. diverges the light rays
B. forms real and inverted image
C. is thinner at the edges and thicker at the middle
D. converges the light rays
8. Position in which the object should be placed in front of the convex lens in order to obtain a virtual and erect image.
A) at the optic center B) between O and F C) at principal F D) beyond 2F
9. Reciprocal of focal length is
A. Power of lens B. Principal Focus C. Magnification D. optic centre
10. Focal length of the convex lens whose radius of curvature is 90 cm is
A) 30 cm B) 60 cm C) 45 cm D) 90 cm
11. The phenomenon of bending of light as it passes from one transparent medium to another is
A. refraction of light
B. reflection of light
C. internal reflection of light
D. lateral inversion of light
12. A doctor prescribes a corrective lens of power $-0.5D$ to a person. The focal length of lens and the type is
A. $-2m$ and concave lens B. $+2m$ and convex lens
C. $+2m$ and concave lens D. $-2m$ and convex lens
13. The nature and the size of the image formed when the object is kept between the principal focus 'F1' and optical center 'O' of a convex lens is
A. virtual, erect and enlarged B. real, inverted and small size
C. virtual, inverted and small size D. real, inverted and enlarged
14. The diameter of the circular outline of a spherical lens is
A. optical centre B. centre of curvature C. aperture D. principal axis

15. Object distance and image distance of a lens are -60 cm and -20 cm respectively, then the magnification of lens will be

- A. -0.33 B. $+3.0$ C. $+0.33$ D. $+4.0$

16. The position of the image obtained by a convex lens when an object is kept between F_1 and $2F_1$ (F : principal focus of the convex lens)

- A. between F_2 and $2F_2$ B. at $2F_2$ C. beyond $2F_2$ D. at infinity

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	D	5	B	9	A	13	D
2	B	6	A	10	C	14	C
3	A	7	A	11	A	15	C
4	A	8	B	12	A	16	C

SOURCES OF ENERGY

Four alternates are given to each question. Choose the correct answer.

1) Which of the following is a non renewable source of energy

- A) Solar energy B) Fossil fuels C) Wind energy D) Geothermal energy

2) Fuel used in thermal power plant is

- A) Coal B) Uranium C) Biomass D) Water

3) In a hydro power station

- A) Water is converted to steam to produce electricity
B) Potential energy of water converted to electrical energy
C) Solar energy is converted in to electrical energy
D) The kinetic energy of water molecules converted in to electrical energy

4) Which is the main source (ultimate source) of energy?

- A) Water B) Wind C) Fossil fuels D) Sun

- 5) Among the following sources of energy which one leads to least environmental pollution in the process of its harnessing and utilization
A) Thermal energy B) Geo thermal energy C) Nuclear energy D) Solar energy
- 6) The major problem in harnessing nuclear energy is
A) It is very difficult to dispose nuclear waste B) Split nuclei
C) Convert nuclear energy in to electrical energy D) to sustain reaction
- 7) The part of the energy demand is fulfilled by hydro electric power stations in India is
A) $\frac{3}{4}$ th B) $\frac{1}{2}$ th C) $\frac{1}{4}$ th D) $\frac{1}{3}$ th
- 8) The major component of biogas is
A) Ethane B) Methane C) Benzene D) Oxygen
- 9) Which country is called as country of winds
A) India B) America C) Denmark D) Italy
- 10) Which part of the solar cooker is responsible for green house effect
A) Mirror B) Glass sheet C) Outer cover of the solar cooker D) Entire solar cooker
- 11) A device which converts solar energy in to electrical energy is
A) Dry cell B) Solar cell C) Electric cell D) Ammeter
- 12) The voltage produced by a solar cell when exposed to sunlight
A) 0.5 V B) 1 V C) 0.5 V – 1 V D) 5 V
- 13) The power of a solar cell is
A) 0.5 W B) 0.6 W C) 0.7 W D) 0.8 W
- 14) Solar cells are made by
A) Hydro carbon B) Phosphorous C) Copper D) Silicon
- 15) Solar water heaters are not much efficient to get hot water during
A) Sunny day B) Cloudy day C) A hot day D) A windy day
- 16) Which among the following is not derived from the Sun
A) Geo thermal energy B) Wind energy C) Nuclear energy D) Bio gas

17) Which is the source of energy produced due to the temperature difference at various levels of ocean

- A) Tidal energy B) Wave energy C) Ocean thermal energy D) Solar energy

18) Geo thermal energy is derived from

- A) Hot spots under the earth B) Hot spots on the earth
C) Ocean thermal energy D) Volcanoes

19) Which of the following reaction is responsible for the production of bio gas in a bio gas Plant

- A) Fermentation B) Oxidation C) Reduction D) Combustion

20) The popular name of bio gas is

- A) Ethane gas B) Helium gas C) Gobar gas D) Methane gas

21) Which state produces the largest amount of wind energy in India

- A) Maharastra B) Tamil Nnadu C) Rajastan D) Karnataka

22) The formation of tides in oceans is due to the gravitational pull of

- A) Sun B) Moon C) Sun and moon D) Mountains

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
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4	D	8	B	12	C	16	C	20	C		

CHEMISTRY: ACIDS, BASES AND SALTS

Four alternates are given to each question. Choose the correct answer.

1. Among the following that is not a base is:

- A) NaOH B) KOH C) NH_4OH D) $\text{C}_2\text{H}_5\text{OH}$

2. To protect tooth decay we are advised to brush our teeth regularly. The nature of the tooth paste commonly used is

- A) Acidic B) Neutral C) Basic D) Corrosive

3. A solution when added to crushed egg shell, a gas is evolved that turns lime water milky. The solution contains.

- A) NH_4Cl B) NaCl C) KCl D) HCl.

4. The PH values of the four solutions A,B,C,D are 5,12,8,and 9 respectively. The correct decreasing order of their hydroxyl ion concentration is

- A) $A > B > C > D$ B) $D > C > B > A$ C) $A > C > D > B$ D) $B > D > C > A$

5. The following type of medicine is used for treating indigestion:

- A) Antibiotic B) Analgesic C) Antacid D) Antiseptic

6. A solution turns red litmus to blue its PH is likely to be.

- A) 1 B) 4 C) 5 D) 10

7. When zinc reacts with sodium hydroxide , the liberating gas is

- A) Hydrogen B) Carbon dioxide C) Chlorine D) Sulphur

8. Use of this on Bee stung area gives relief from pain and irritation.

- A) Orange juice B) Vinegar C) Baking soda D) Sour milk

9. The acid present in Ant sting is

- A) Oxalic acid B) Acetic acid C) Methanoic acid D) Citric acid.

10. Our body works within the pH range of

- A) 5.0 to 5.6 B) 8.5 to 9.0 C) 7.0 to 7.8 D) 2.0 to 3.8

11. Tooth decay starts when the PH of the mouth is

- A) Above 5.5 B) Between 7 to 5.5 C) Lower than 5.5 D) More than 8.5

12. The statement is true for acids is:

- A) Bitter and change red litmus to blue B) Sour and change red litmus to blue
C) Bitter and change blue litmus to red D) Bitter and change red litmus to blue

13. The most basic of the following solution is.

- A) pH = 8.2 B) pH = 9.3 C) pH = 11.2 D) pH = 10.5

14. which of the following is an olfactory indicator.

- A) Red cabbage B) Litmus C) Turmeric D) Clove

15. Sour milk (Curd) is a natural source of which acid?

- A) Citric acid B) Lactic acid C) Acetic acid D) Oxalic acid

16. Zinc granules on treating with an acid 'X', form the zinc sulphate ($ZnSO_4$) salt along with the evolution of a gas 'Y' which burns with a pop sound when brought near to a burning candle.

Identify the acid 'X' and gas evolved 'Y'.

- A) X- Sulphuric acid and Y- Oxygen gas B) X- Hydrochloric acid and Y- Oxygen gas
C) X- Sulphuric acid and Y- Hydrogen gas D) X- Hydrochloric acid and Y- Hydrogen gas

17. Name the gas released when Sodium Hydroxide reacts with Zinc metal and method to confirm the released of that gas is:

- A) Carbon dioxide gas and gas burns making a 'pop' sound if burning candle near a gas filled bubble
B) Hydrogen gas and hydrogen gas burns making a 'pop' sound if burning candle near a gas filled bubble.
C) Carbon dioxide gas and brisk effervescence of Carbon dioxide gas.
D) Hydrogen gas and brisk effervescence of Hydrogen gas.

18. Due to excess passing of CO_2 through an aqueous solution of slaked lime, its milky ness fades because:

- A) Calcium hydrogen carbonate is produced, which is soluble in water.
B) Calcium oxide is produced, which is soluble in water.
C) Calcium bi-carbonate is produced, which is soluble in water.
D) Calcium hydroxide is produced, which is soluble in water.

19. Alkalis are:

- A) Acids, which are soluble in water B) Acids, which are insoluble in water
C) Bases, which are insoluble in water D) Bases, which are soluble in water

20. Name the gas released when sodium hydrogen carbonate reacts with hydrochloric acid

- A) Hydrogen B) Carbon dioxide C) Water D) Oxygen

21. A strong acid:

- A) Completely gets ionized in water B) Partially gets ionized in water
C) Do not get ionized in water D) Produce OH^- ions

22. Of the following the chemical that will turn red litmus blue is:

- A) Vinegar B) Lemon juice C) Soft drinks D) Baking soda solution

23. Name the reaction when an acid is mixed with base to produce salt and water.

- A) Addition reaction. B) Neutralisation reaction.
C) Substitution reaction. D) Oxidation reaction.

24. Among the following acid having highest hydrogen ion concentration is one with:

- A) $\text{pH} = 2.5$ B) $\text{pH} = 1.8$ C) $\text{pH} = 7$ D) $\text{pH} = 10$

25. Dissolution of acid in water is:

- A) Endosmosis B) Isothermic. C) Endothermic. D) Exothermic.

26. The pH of three solutions X, Y and Z is 6, 4 and 8 respectively. The correct order of acidic strength:

- A) $X > Y > Z$ B) $Z > Y > X$ C) $Y > X > Z$ D) $Z > X > Y$

27. Rain is called acid rain when its:

- A) pH falls below 7 B) pH falls below 6 C) pH falls below 5 D) pH is above 7

28. Tooth enamel is made up of:

- A) Calcium carbonate B) Calcium phosphate C) Calcium oxide d) Calcium chloride

29. Farmers neutralize the effect of acidity of the soil by adding.

- A) Gypsum B) Slaked lime C) Caustic soda D) Baking soda

30. Tomato is a natural source of:

- A) Acetic acid B) Citric acid C) Tartaric acid D) Oxalic acid

Key Answers :

1-D, 2-C, 3-D, 4-D, 5-C, 6-D, 7-A, 8-C, 9-C, 10-C, 11-C, 12-B, 13-C, 14-D, 15-B
16-C, 17-B, 18-A, 19-D, 20-B, 21-A, 22-D, 23-B, 24-B, 25-D, 26-C, 27-C, 28-B, 29-B, 30-D

3 METALS AND NON METALS

Four alternates are given to each question. Choose the correct answer.

- 1) An example of metal which is liquid at room temperature is
A) Sodium B) Silver C) Mercury D) Lead
- 2) The ability of metals to be made in to thin sheets is called
A) Ductility B) Conductivity C) Sonority D) Malleability
- 3) The gas released by the reaction of metals with dilute acids is
A) Hydrogen B) oxygen C) Nitrogen D) Helium
- 4) Metal oxides which react with both acid as well as bases to produce salts and water are known
A) Nitrogen oxides B) Acidic oxides
C) Basic oxides D) Amphoteric oxides
- 5) The metal which is usually stored in kerosene is
A) Gold B) Sodium C) Red phosphorous D) White phosphorous
- 6) Food cans are coated with Tin and not Zinc because
A) Zinc is costlier than Tin B) zinc is more reactive than Tin
C) Zinc has a higher melting point than Tin D) zinc is less reactive than tin
- 7) Arrange given elements in the decreasing order of their reactivity Al, K, Ca, Ag
A) $Ca > K > Al > Ag$ B) $Al > K > Al > Ca$
C) $K > Ca > Al > Ag$ D) $Ag > Al > Ca > K$

- 8) The metals which are found in nature in the free states are
- A) Platinum and Iron B) Gold and Aluminium
C) Silver and Sodium D) Platinum and Silver
- 9) The sulphide ores are converted into oxides by heating strongly in the presence of excess air is called
- A) Calcination B) Hydrogenation C) Galvanization D) Roasting
- 10) Highly exothermic displacement reaction is called
- A) Combustion reaction B) Thermite reaction
C) Chemical reaction D) Reduction reaction
- 11) A homogeneous mixture of two or more metals or metals and nonmetals are called
- A) Alloys B) Brass C) Bronze D) Stainless steel
- 12) When metals are exposed to moist air for a long time acquires a coating of their respective oxides called
- A) Concentration B) Explosion C) Dilution D) corrosion
- 13) Lustrous non metal among the following is
- A) Iodine B) Carbon C) Oxygen D) Nitrogen
- 14) Galvanization is a method of protecting steel and iron from rusting by coating them with a thin layer of
- A) Aluminium B) Chromium C) Nickel D) Zinc
- 15) Amalgam is an alloy of
- A) Copper and zinc B) Lead and tin C) Mercury D) Copper and tin
- 16) A compound “ X ” is solid, brittle, soluble in inorganic solvent but insoluble in organic solvents. It has high melting and boiling point. It contains ionic bond and conducts electricity in molten state. Identify the compound “X” from the following
- A) NaCl B) CO₂ C) SO₂ D) NO₂
- 17) The carbonate ores are changed in to oxides by heating strongly in limited air is called
- A) Smelting B) Reduction C) Roasting D) calcination

18) An acidic oxide among the following is

- A) MgO B) Na₂O C) CO₂ D) CaO

19) Basic oxide among the following is

- A) NO₂ B) Al₂O₃ C) Na₂O D) SO₂

20) The following pairs will give displacement reaction

- A) NaCl solution and copper metal B) MgCl₂ solution and aluminum metal
C) FeSO₄ solution and silver metal D) AgNO₃ solution and copper metal

21) The correct arrangement of the given metals in ascending order of their reactivity is

- A) Potassium > Sodium > aluminum > Silver B) Copper > Zinc > Calcium > Sodium
C) Magnesium > Iron > Lead > Gold D) Potassium > Copper > Aluminums > Iron

22) The process of forming thick oxide layer of aluminum oxide that makes it resistant to further corrosion is called

- A) Rusting B) Galvanization C) Anodizing D) Electroplating

23) The following alloy contain non metal as one of its constituent

- A) Brass B) Bonze C) Amalgam D) Stainless steel

24) In the following chemical reaction metal represented by 'X' is



- A) Ag B) Au C) Fe D) Hg

25) The electronic configuration of element 'X' is 2, 8, 1 and the electronic configuration of element 'Y' is 2, 8, 7. Then the type of bond formed between these two elements is

- A) Ionic bond B) Covalent bond C) Metallic bond D) Hydrogen bond

Key answer

1-C, 2-D, 3-A, 4-D, 5-B, 6-B, 7-C, 8-D, 10-B, 11-A, 12-D, 13-A, 14-D, 15-C, 16-A, 17-D, 18-D, 19-C, 20-D, 21-B, 22-C, 23-D, 24-C, 25-A

CARBON AND ITS COMPOUNDS

Four alternates are given to each question. Choose the correct answer.

- Identify the simplest form of hydrocarbon.
A) Methane B) Ethane C) Ethene D) Benzene
- Which of the following compound having the general formula C_nH_{2n}
A) Ethane B) Benzene C) Ethyne D) cyclobutane
- Select a unsaturated hydrocarbon of the following:
A) Pentane B) Cyclohexane C) Ethene D) Propane
- Ethane, with the molecular formula C_2H_6 has
A) 6 covalent bonds B) 7 covalent bonds C) 8 covalent bonds D) 9 covalent bonds
- Which of the following is the molecular formula of cyclobutene?
A) C_4H_{10} B) C_4H_6 C) C_4H_8 D) C_4H_4
- Butanone is a four-carbon compound with functional group
A) Carboxylic group B) Aldehyde C) Ketone D) Alcohol,
- While cooking, if the bottom of the vessel is getting blackened on the outside, it means that
A) Food is not cooked completely C) The fuel is not burning completely
B) The fuel is wet D) The fuel is burning completely
- C_2H_6 , C_3H_8 , C_4H_{10} , C_5H_{12} , these are the homologous series of compounds of alkanes. The difference between these compounds molecular formula is,
A) CH_3 B) CH C) CH_2 D) C_2H_2
- The organic compounds having functional group - $COOH$ are known as:
A) Aldehyde B) Ketone C) Carboxylic acids D) Alcohol
- The functional groups present in propanol and propanal respectively are
A) $-OH$ and $-CHO$ B) $-OH$ and $-COOH$
C) $-CHO$ and $-COOH$ D) $-CHO$ and $-CO$

11. Which of the following functional group represents ketone?

- A) $-C=O$ B) $-CHO$ C) $-COOH$ D) $-OH$

12. The property of self-linkage among identical atoms to form long chain compounds of carbon is

- A) Isomerism B) Halogenation C) Catenation D) Esterification

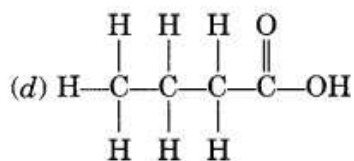
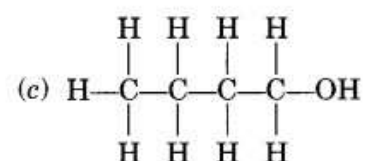
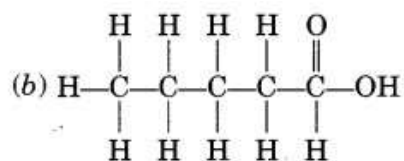
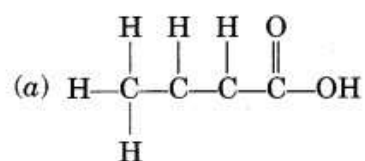
13. The aromatic hydrocarbon of the following is:

- A) CH_4 B) C_6H_{12} C) C_6H_{10} D) C_6H_6

14. Which one of the following does not belong to same homologous group?

- A) CH_4 B) C_2H_2 C) C_2H_6 D) C_3H_8

15. The correct structural formula of butanoic acid is



16. The molecular formula of three carbon compounds which are in homologous series are C_2H_6 , C_3H_8 , C_4H_{10} . The suitable general formula for these compounds is

- A) $C_n H_{2n}$ B) $C_n H_{2n - 1}$ C) $C_n H_{2n - 2}$ D) $C_n H_{2n + 2}$

17. Identify the alkene of the following:

- A) Methane B) Ethane C) Propene D) Butyne

18. The number of covalent bonds present in propene molecule is:

- A) 9 B) 8 C) 1 D) 3

19. The soap molecule has a

- A) Hydrophilic head and a hydrophobic tail B) Hydrophobic head and a hydrophilic tail
C) Hydrophobic head and a hydrophobic tail D) Hydrophilic head and a hydrophilic tail

20. Detergents are sodium or potassium salts of long chains of

- A) Carboxylic acids B) Sulphonic acids C) Aldehydes D) Stearic acids

Key answers

1	a	5	c	9	c	13	d	17	c
2	d	6	c	10	a	14	b	18	a
3	c	7	b	11	a	15	d	19	a
4	b	8	c	12	c	16	d	20	b

5. PERIODIC CLASSIFICATION OF ELEMENTS

Four alternatives are given to each question. Choose the correct answer.

- The discovery of these elements made the Newland's law of octaves irrelevant
A) Noble gases B) Non-metals C) Halogens D) Metals
- The number of groups and periods in the modern periodic table are
A) 7, 9 B) 18, 7 C) 7, 18 D) 9, 7
- Elements P, Q, R and S have atomic numbers 11, 15, 17 and 18 respectively. Which of them are reactive non-metals?
A) P and Q B) P and R C) Q and R D) R and S
- The law of triads was proposed by
A) John Newland's B) Johann Dobereiner
C) Demetri Mendeleev D) Henry Moseley
- The Eka-aluminium proposed by Mendeleev is present day
A) Silicon B) Germanium C) Gallium D) Aluminium

6. The atomic numbers of A, B, C, D and E are 2, 5, 7, 10 and 30. The groups of elements that belong to the same period are

- A) A, B, C B) B, C, D C) A, D, E D) B, D, E

7. Consider this as part of the modern periodic table. Among them the element that has lowest atomic radius is

W	X
Y	
Z	

- A) W B) X C) Y D) Z

8. An element having atomic number 14 can be placed in which of the given group and period of the modern periodic table

- A) Group 15 and 4th period B) Group 14 and 3th period
C) Group 16 and 5th period D) Group 16 and 4th period

9. "The Properties of the elements are the periodic functions of their atomic number" this is

- A) Modern periodic law B) Law of triads
C) Law of octaves D) Mendeleev Periodic law

10. The element having high electronegativity is

- A) K B) N C) Ca D) Be

11. W, X, Y, Z have atomic numbers 4, 7, 11 & 12. The elements belonging to same group are

- A) W & X B) X & Y C) W & Z D) Y & Z

12. The number of naturally occurring elements in nature are

- A) 118 B) 24 C) 94 D) 103

13. The earliest attempt to classify elements resulted in grouping them into
- A) Artificial and natural elements B) Non-metals and metalloids
C) Metals and metalloids D) Metals and non-metals
14. The number of triads identified by Dobereiner during his classification were
- A) 3 B) 4 C) 5 D) 6
15. According to Newland the number of elements existed in nature were
- A) 118 B) 94 C) 65 D) 56
16. As we go down the group the number of shells
- A) Decreases B) Increases
C) First increases and then decreases D) Does not change
17. In group valency/ number of valence electrons
- A) Decreases B) Increases
C) First increases and then decreases D) Does not change
18. Electropositivity of elements in a period
- A) Decreases B) Increases
C) First increases and then decreases D) Remains same
19. The atomic number of an element 'X' is 12 and the atomic number of 'Y' is 16. Then the type of bond formed between these two elements
- A) Hydrogen bond B) Covalent bond C) Ionic bond D) Metallic bond
20. Metalloids exhibit properties of
- A) Metals B) Both metals and non-metals
C) Non-metals D) Neither metals nor non- metals
21. Identify the correct statement related to metals
- A) They accept electrons B) Electronegative in nature
C) Form acidic oxides D) They donate electrons

A. Left auricle
C. Left ventricle

B. Right auricle
D. Right ventricle

6. The opening and closing of stomata are controlled by

A. Guard cells
C. Somatic cells

B. Companion cells
D. Stone cells

7. The class of animals which are having four chambers of the heart

A. Fishes and amphibians
C. Reptiles and birds

B. Amphibians and reptiles
D. Birds and mammals

8. A muscular organ responsible for continuous blood circulation in our body is

A. Heart
C. Lungs

B. Kidney
D. Neuron

9. Identify the correct statement about arteries

A. They have thick wall
B. They are the smallest blood vessels in our body
C. They have valves
D. They carry blood from different parts of the body to the heart

10. A large number of urine filtering units found in our kidneys are

A. Neuron
C. Nephron

B. Alveoli
D. Villi

11. The deficiency of hemoglobin in our body will cause

A. Less urine production
C. Delay in blood clotting

B. Fatigue
D. Increase in blood pressure

12. The component of the blood that prevents the low blood pressure due to bleeding during injuries is

A. White blood corpuscles
B. Lymph

B. Plasma
D. Platelets

13. The major driving force in the transportation of water and minerals in plants during night time is

A. Root pressure
C. Translocation

B. Transpiration pull
D. Suction pressure

14. The function of kidneys is

A. Pumping blood
B. Control and coordination

15. When the right atrium relaxes the blood rushes
- A. To right ventricle
 - B. To right atrium from the body
 - C. To right atrium from body
 - D. To left atrium from right atrium
16. Pulmonary veins have thinner walls compared to pulmonary arteries, because
- A. They are very small.
 - B. They have valves.
 - C. They carry oxygenated blood.
 - D. Blood flows with less pressure.
17. Blood vessel that carries oxygenated blood outside the heart is
- A. Pulmonary artery
 - B. Pulmonary vein
 - C. Aorta
 - D. Vena Cava
18. The function of lymph is
- A. Transportation of oxygen
 - B. Transportation of digested fat from intestine
 - C. Clotting of blood
 - D. Protecting body from the diseases
19. The left and right part our heart is separated by
- A. Synapse
 - B. Septum
 - C. Stomata
 - D. Valves
20. Identify the group of cold blooded animals
- A. Bat and Frog
 - B. Pigeon and man
 - C. Shark and lizard
 - D. Chimpanzee and man
21. The liquid component of the blood is
- A. Water
 - B. Haemoglobin
 - C. Lymph
 - D. Plasma
22. Gums and resins are stored in
- A. Old xylem
 - B. Stomata

C. Dead cells

D. Urea

23. The excretory product produced by our kidneys is

A. Ammonia

B. Urea

C. Amino acids

D. Carbon dioxide

24. Identify the correct statement among the following with reference to transportation in plants

A. Root pressure alone is responsible for xylem conduction.

B. Translocation is not associated with the use of A.T.P molecules.

C. Phloem tissue helps in translocation.

D. Transportation of water and minerals is two way process.

25. The purpose of the presence of valves in veins is

A. To withstand the high pressure

B. To avoid the back flow of blood

C. To keep our blood warm

D. To separate oxygenated and deoxygenated blood

26. The correct pathway of transport of oxygenated blood from lungs to the heart is

A. Pulmonary arteries ---- Right ventricle ---- Right atrium

B. Pulmonary arteries ---- Right atrium ---- Right ventricle

C. Pulmonary veins ---- Left ventricle ---- Left atrium

D. Pulmonary veins ---- Left atrium ---- Left ventricle

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	A	6	A	11	B	16	D	21	D	26	B
2	B	7	D	12	D	17	C	22	A		
3	B	8	A	13	B	18	B	23	B		
4	D	9	A	14	D	19	B	24	C		
5	A	10	C	15	B	20	C	25	B		

CONTROL AND COORDINATION

1. Select the mismatched pair among the following.
 - A. Testosterone - development of male sex organs
 - B. Insulin - regulates blood sugar level
 - C. Thyroxin - stimulates growth in all organs
 - D. Ovaries - development of female sex organs
2. The correct sequence of transport of signals through the neuron
 - A. Axon --- dendrite --- nerve ending --- cell body
 - B. Cell body --- axon --- dendrite --- nerve ending,
 - C. Axon --- cell body --- dendrite --- nerve ending,
 - D. Dendrite --- cell body --- axon --- nerve ending
3. An example for growth independent movement
 - A. Bending of shoot towards light
 - B. Closing of "touch me not" leaves when touched
 - C. Pollen tube grow towards ovary
 - D. Roots grow towards water
4. The place where the part responsible for maintaining body posture and balance is found in
 - A. Hindbrain
 - B. Midbrain
 - C. Forebrain
 - D. Spinal cord
5. The hormone that controls directional movements in plants is
 - A. Gibberellins
 - B. Auxins
 - C. Cytokinin
 - D. Abscisic acid
6. Deficiency of iodine in our diet results in
 - A. Swollen neck
 - B. Rise in blood sugar
 - C. Stunted growth
 - D. Irregular menstrual cycles

7. The correct statement with respect to reflex action is
- A. Reflex actions are planned actions
 - B. Brain controls reflex actions
 - C. Spinal cord is the centre of reflex actions
 - D. Information of reflex actions is not shared with the brain
8. The endocrine glands present on our kidneys are
- A. Ovaries
 - B. Thyroid
 - C. Pituitary
 - D. Adrenal
9. Reaction of the roots in plants is
- A. Directional and negatively phototropic.
 - B. Positively phototropic and negatively geotropic.
 - C. Non directional and positively geotropic.
 - D. Directional and positively phototropic.
10. Which of the following gland does not exist in pair is
- A. Testis.
 - B. Ovary.
 - C. Pituitary
 - D. Adrenal
11. Higher activity of the endocrine gland that is present in the base of the brain during adolescence causes
- A. Gigantism.
 - B. Increased memory.
 - C. Loss of memory.
 - D. Dwarfism
12. Swollen neck and reduce metabolic function indicates
- A. Irregular blood sugar level.
 - B. Blood circulation is blocked in neck region.
 - C. More deposition of fat in neck region.
 - D. Deficiency of iodine in our body
13. The part the neuron that converts chemical impulses into electrical impulses
- A. Axon.
 - B. Cell body.
 - C. Nerve ending.
 - D. Dendrites
14. Hormone responsible for promoting growth in fast growing parts like seeds and fruits
- A. Growth hormone
 - B. Cytokinin
 - C. Thyroxin
 - D. Auxin

15. Identify the reflex action among the following.
- A. Turning over head suddenly after hearing a loud noise.
 - B. Increase in the heart beat when we are angry.
 - C. Drinking water when we feel thirsty.
 - D. Sweating more when it is hot.
16. Pancreas: insulin::testis: -----
- A. Estrogen.
 - B. Adrenaline.
 - C. Thyroxin.
 - D. Testosterone
17. An endocrine gland present in our digestive system
- A. Pituitary.
 - B. Adrenaline.
 - C. Pancreas.
 - D. Thyroid
18. The Reason for dwarfism is
- A. Over functioning of Pituitary gland
 - B. Reduced functioning of Thyroid gland
 - C. Reduced functioning of pituitary gland
 - D. Over functioning of thyroid gland
19. If the roots of the plants are going towards the nitrate concentrations in the soil, it is
- A. Phototropism
 - B. Hydrotropism
 - C. Thigmotropism
 - D. Chemotropism
20. The gap between the two successive neurons is called
- A. Dendrite
 - B. Synapse
 - C. Axon
 - D. Impulse
- 21) The function of medulla of hindbrain is
- A. Controlling body posture and balance
 - B. Generating responses according to the impulses received by receptors.
 - C. Controlling blood pressure vomiting and salivation
 - D. Controlling reflex action

22. The pathway of reflex action is

- A. Receptor ----Sensory neuron --- Spinal cord----motor neuron-- Effectors
- B. Sensory neuron ---Spinal cord----motor neuron--Receptor-- Effectors
- C. Effectors----motor neuron---Spinal cord----Sensory neuron--- Receptor
- D. Spinal cord----Sensory neuron--- Receptor----motor neuron--Effectors

23) The interpretation of sensory information takes place in

- A. Midbrain
- B. Cerebrum
- C. Spinal cord
- D. Cerebellum

24. A plant is laid horizontal to the ground. The part of the plant that exhibits positive geotropism after a few days is

- A. Stem
- B. Leaf
- C. Fruit
- D. Root

25. Deficiency of estrogen hormone in female may cause

- A. Decreased physical development
- B. Irregular menstrual cycles
- C. Expression of male sexual characters
- D. Slow rate of metabolic activities

26. The movement of muscles during any action is due to

- A. Increase in blood pressure
- B. Change in protein combination
- C. Variation in the amount of water
- D. Restructuring of D.N.A

27. When the sugar level in our blood decreases, then

- A. Insulin level increases
- B. Adrenaline level increases
- C. Insulin level decreases
- D. Adrenaline level decreases

28. The hormone that it restricts the growth in plants is

- A. Abscisic acid
- B. Gibberellins
- C. Cytokinin
- D. Auxins

29. The example for phototropism is
- Closing of touch me not leaves
 - Growth of tendrils by hugging the support
 - Growth of pollen tube ovary
 - Roots bending away from the light
30. The hormone that regulates the metabolism of proteins, fats and carbohydrates
- Testosterone
 - Adrenalin
 - Thyroxin
 - Insulin

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	C	6	A	11	A	16	D	21	A	26	B
2	D	7	C	12	D	17	C	22	A	27	C
3	B	8	D	13	D	18	C	23	B	28	A
4	C	9	A	14	B	19	D	24	D	29	D
5	B	10	C	15	A	20	B	25	B	30	C

HOW DO ORGANISMS REPRODUCE?

1. The plant having unisexual flowers is
- Garden pea
 - Hibiscus
 - Pumpkin
 - Rose
2. Which of the following statement is correct with respect to the reproduction in plants?
- Fusion of gametes takes place on stigma
 - Every pollination results in formation of zygote
 - All the floral parts persists in the flower
 - After fertilization ovule transforms into seed

3. A sexually transmitted disease is
- A. Malaria
 - B. AIDS
 - C. Typhoid
 - D. Diabetes
4. The plant that shows self pollination is
- A. Watermelon
 - B. Coconut
 - C. Mustard
 - D. Papaya
5. A ball of cells formed by the continuous division of fertilized egg is
- A. Zygote
 - B. Embryo
 - C. Foetus
 - D. Seed
6. A contraceptive method that causes hormonal imbalance in women is
- A. Surgical method
 - B. Use of copper T
 - C. Use of condoms
 - D. Intake of contraceptive pills
7. Self-pollination is
- A. Transfer of pollen to the stigma of another flower
 - B. Transfer of pollen to the stigma of same flower
 - C. Transfer of pollen to the ovary of same flower
 - D. Transfer of pollens to the ovary of another flower
8. The main advantage of sexual reproduction is
- A. The production of more off-springs
 - B. The production organisms with more variation
 - C. The production organisms which are genetically same
 - D. The production organisms that can withstand any adverse condition
9. The structure that supplies nourishment to developing embryo
- A. Fallopian tube
 - B. Prostate gland
 - C. Style
 - D. Placenta
10. An elastic bag like structure present in female reproductive system is
- A. Ovary
 - B. Scrotum
 - C. Uterus
 - D. Urinary bladder

11. Sexually transmitted diseases can be avoided by the use of
- A. Condoms
 - B. Copper T
 - C. Oral contraceptive pills
 - D. Surgical method
12. The function of testis is
- A. Production of eggs
 - B. Production of sperms
 - C. Production of semen
 - D. Production of pollen grains
13. Boys inherit Y chromosomes
- A. Only from his mother
 - B. From mother or from father
 - C. From father and mother both
 - D. only from his father
14. In organisms that have complex body structure the motile gamete is
- A. Only male gamete
 - B. Both male and female gametes
 - C. Only female gamete
 - D. Either male or female gamete
15. The middle-elongated part of the pistil that allows the growth of pollen tube is
- A. Stigma
 - B. Style
 - C. Filament
 - D. Ovary
16. The correct statement about male reproductive system is
- A. Scrotum is present in the abdominal cavity.
 - B. Urethra is the common passage for both urine and semen.
 - C. Fallopian tube helps to deliver sperms
 - D. Prostate gland produces sperms.
17. The process of transfer of Pollen from anthers to stigma is known as
- A. Pollination
 - B. Reproduction
 - C. Germination
 - D. Fertilization
18. The process of fusion of male and female gametes
- A. Pollination
 - B. Reproduction
 - C. Germination
 - D. Fertilization

19. The changes that occur in flowers after fertilization are given below.

The correct order of process is.....

- i. The ovary becomes fruit
- ii. The petals, sepals, stamens shrivel and fall off.
- iii. The ovule is converted into seed.

- A. i), ii), iii)
- B. iii), ii), i)
- C. iii), i), ii)
- D. i), iii), ii)

20. Deficiency of estrogen hormone in female may cause

- A. Decreased physical development
- B. Irregular menstrual cycles
- C. Expression of male sexual characters
- D. Slow rate of metabolic activities

21. The fertilization of ovum and sperm happens in

- A. Ovary
- B. Oviduct / Fallopian tube
- C. Uterus
- D. Vagina

22. The secretion of which gland helps in easy transportation of sperms and also nutrition

- A. Adrenal gland
- B. Vas deferens
- C. Prostate gland & seminal vesicles
- D. Testes

23. The hormone responsible for the secondary sexual characters in boys

- A. Testosterone
- B. Adrenaline
- C. Insulin
- D. estrogens

24. The hormone responsible for the secondary sexual characters in girls

- A. Testosterone
- B. Adrenaline
- C. Insulin
- D. Estrogens

25. A pathogen that causes gonorrhoea and syphilis transmitted through sexual contact

- A. Protozoa.
- B. Bacteria
- C. Virus.
- D. Fungus

26) The correct sequence found in the process of sexual reproduction in flower is

- A. Pollination, fertilization, embryo, seed
- B. Seed, embryo, fertilization, pollination
- C. Embryo, seed, pollination, fertilization
- D. Pollination, fertilization, seed, embryo

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	C	6	D	11	B	16	B	21	B
2	D	7	B	12	B	17	A	22	C
3	B	8	B	13	A	18	D	23	A
4	C	9	D	14	A	19	D	24	D
5	C	10	C	15	B	20	B	25	B
								26	A

HERIDITY AND EVOLUTION

Four alternates are given to each question. Choose the correct answer.

1. Father of Genetics is
 - A. Gregor Johann Mendel
 - B. Charles Darwin
 - C. August Weismann
 - D. Lamark
2. The main advantage of sexual reproduction is
 - A. To produce more offspring
 - B. To produce organisms with variation
 - C. To produce organisms which are genetically identicle
 - D. To produce organisms that can withstand any adverse condition
3. An example for homologous organs is
 - A. Our arm and a dog's forelimb
 - B. Wings of butterfly and wings of birds
 - C. Legs of cockroach and legs of lizard
 - D. Potato and carrot
4. When we cross a dominant violet flower plant with recessive white flower plant, in F1 generation we get
 - A. All violet flower plants
 - B. One violet and three white flower plants
 - C. All white flower plants
 - D. One white and three violet flower plants

5. In a dihybrid cross of tall round and short wrinkled seeded plants we got tall wrinkled and dwarf round seeded plants in the F₂ generation. This shows that,
- A. Tallness is always associated with round shape
 - B. Tallness is independent of round shape
 - C. Tall round are recessive compared to dwarf wrinkled
 - D. They were produced due to change in DNA
6. The foetus that received "X" chromosome from father will become
- A. A boy
 - B. A girl
 - C. Either a boy or a girl
 - D. Neither boy nor a girl
7. Boys inherit Y chromosomes
- A. Only from his mother
 - B. From mother or from father
 - C. From father and mother both
 - D. Only from his father
8. The word gene refers to
- A. A protein that produces DNA
 - B. A section of DNA that carries information
 - C. DNA of germ cells
 - D. Another word for chromosomes
9. The phenotypic ratio of F₂ Plants in monohybrid cross is
- A. 3:1
 - B. 1:2:2:1
 - C. 9:3:3:1
 - D. 2:1
10. The basic purpose behind the evolution of wings in birds is
- A. To help them to fly
 - B. To provide protection against cold
 - C. To provide sexual attraction
 - D. To protect from the enemies
11. The process of continuation of unfavorable variation due to an accident in a population is
- A. Genetic drift
 - B. Accidental selection
 - C. Natural selection
 - D. Artificial selection

12. A study shows that "A few types of dinosaurs had wings." This study proves that

- A. All dinosaurs did not have wings
- B. Only a few dinosaurs had wings
- C. Wings were not inevitable for dinosaurs
- D. Birds evolved from reptiles

13. The eye structures of octopus and vertebrates are different. It means

- A. They are homologous
- B. They evolved from same origin
- C. Their ancestors are different.
- D. The octopus's eyes are vestigial.

14. Mendelian experiment consisted of breeding tall pea plants bearing violet flowers with short pea plants bearing white flowers. The progeny all bore violet flowers, but almost half of them were short. This suggests that the genetic make-up of the tall parent can be depicted as

- A. TTWW
- B. TTww
- C. TtWW
- D. TtWw

15. In evolutionary terms, we have more in common with

- A. A Chinese school-boy
- B. A chimpanzee
- C. A spider
- D. Bacterium

16. The process of transfer of traits from parents to offspring

- A. Speciation
- B. Mutation
- C. Replication
- D. Heredity

17. If a round green seeded plant (rrYY) is crossed with wrinkled yellow seeded pea plant (RRyy). The seeds produced in F₁ generation are

- A. Round and green
- B. Wrinkled and yellow
- C. Wrinkled and green
- D. Round and yellow

18. The experiences of an individual during its lifetime cannot be passed to its progeny because they are

- A. Inherited traits
- B. Acquired traits
- C. Dominant traits
- D. Recessive traits

19. Analogous organs have

- A. Same structure and same function
- B. Same structure and different function
- C. Different structure and same function
- D. Different structure and different function

20. The genetic expression of F1 plants when a tall round (TTRR) plant is crossed with short wrinkle plant(ttrr) is

- A. TtRr
- B. ttRR
- C. TTrr
- D. TTRR

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	A	5	B	9	B	13	C	17	C
2	B	6	B	10	B	14	C	18	A
3	A	7	D	11	A	15	B	19	C
4	A	8	A	12	D	16	D	20	A

OUR ENVIRONMENT

Four alternates are given to each question. Choose the correct answer.

1. 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. Harm various organisms in the ecosystem
- C. Increase the density of harmful chemicals in different tropic levels
- D. Undergo recycling naturally in the environment

2. The correct equation related to ozone formation is

- A. $O_2 \rightarrow [O] + [O], [O] + O_2 \rightarrow O_3$
- B. $[O] + [O] + [O] \rightarrow O_3$
- C. $[O] + O_2 \rightarrow O_3, O_2 \rightarrow [O] + [O]$
- D. $[O] + O_2 \rightarrow O_3$

3. The materials that change slowly their form and nature are
- A. Used tea leaves
 - B. Peels of vegetables
 - C. Waste papers
 - D. Plants fibres
4. The one of chemical for the depletion of ozone layer is
- A. Methane gas
 - B. HFCs (Hydrofluoro carbons)
 - C. CFCs (Chloro-fluoro carbons)
 - D. Carbon dioxide
5. The substances that are do not undergo decaying by decomposers are called
- A. Biodegradable
 - B. Non-Biodegradable
 - C. Bio waste
 - D. Biomaterial
6. According to 1987 UNEP (United Nations Environment Program) the agreement signed by all countries is to manufacture
- A. Refrigerators with CFC
 - B. CFC-free refrigerators
 - C. Air conditioners with CFC
 - D. cars with CFC
7. Among the following group that contain only biodegradable items is
- A. Cake, Wood and Plastic
 - B. Fruit peels, glass pieces and grass
 - C. Flowers, Fruit peel and grass
 - D. Glass pieces, metal pieces and Flowers
8. The eco-friendly practices from the following are
- A. Switching lights on even when not necessary
 - B. Carrying cloth-bag to market
 - C. Using bikes while going to nearby places
 - D. Drinking tea in plastic cups.

9. Ozone protects us from

A. Ultra-Violet radiation

B. Microwave radiation

C. Visible radiation

D. Infra-red radiation

10. The number of oxygen atoms in Ozone is

A. One

B. Two

C. Three

D. Four

11. One of the factors responsible for the depletion of ozone layer is

A. Reforestation

B. use of bio-fuel

C. Use of detergents

D. use of aerosols

12. Ozone layer is formed from oxygen at the higher levels of the atmosphere by the action of

A. X-rays

B. U-V radiations

C. Infrared radiations

D. Radio waves

13. Biodegradable substance among the following is

A. Glass bottle

B. Cooker gasket

C. Paper cup

D. Iron nail

14. A deadly poisonous gas made of three oxygen atoms, that protectively shields our earth is

A. Carbon dioxide

B. Methane

C. Ammonia

D. Ozone

15. Which of the following is not the correct way of managing waste?

A. Separating dry and with waste

B. Burning hospital waste

C. Preparing biogas from hotel waste

D. Land filling plastic waste

10. The cause of concern for damage to the ozone layer is

- A. Blocking of UV radiation
- B. Falling of acid rain directly on the earth
- C. Direct entry of UV radiation to the earth
- D. Increase in greenhouse effect.

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
1	D	5	B	9	A	13	B
2	A	6	B	10	C	14	D
3	D	7	C	11	D	15	B
4	C	8	B	12	B	16	C

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES

Four alternates are given to each question. Choose the correct answer.

1. Cracked and damaged buckets are used for growing plants. The ecofriendly principle behind this is

- A. Reuse
- B. Reduce
- C. Recycle
- D. Repurpose

2. Which of the following statement is not true with recycling?

- A. It helps to manage waste
- B. It reduces the need for new raw materials
- C. It saves energy
- D. It is better than " reuse"

3. Amrita Devi Bishnoi National award is awarded to the achievers in the field of

- A. Forest conservation
- B. Wildlife conservation
- C. Biodiversity conservation
- D. Water conservation

4. One environmental problem caused by the construction of huge dams is
- A. They need huge money to build
 - B. They need advanced technology
 - C. Rehabilitation of natives
 - D. Loss of biodiversity
5. Which of the following people are not the active stakeholders of forest conservation in the present situation?
- A. Tribal people
 - B. Forest department
 - C. Industries that are depending on forest
 - D. Environment enthusiasts
6. The eco-friendly principle behind repairing leaking taps is
- A. Reduce
 - B. Refuse
 - C. Reuse
 - D. Recycle
7. The traditional water harvesting structures of Karnataka are called
- A. Khadins
 - B. Bandaras
 - C. surangam
 - D. Katta
8. Which one of the following is known as 'biodiversity hotspots'?
- A. Rivers
 - B. Forests
 - C. Deserts
 - D. Grassland
9. Which of the following canals brought about greenery in Rajasthan?
- A. Rajiv Gandhi Canal
 - B. Jawaharlal Canal
 - C. Indira Gandhi Canal
 - D. Mahatma Gandhi Canal
10. The main cause for abundant coli form bacteria in the river Ganga is
- A. Disposal of human excreta directly
 - B. Discharge of effluents from electroplating industries
 - C. Washing of clothes
 - D. Immersion of ashes.
11. What is the purpose of rain-water harvesting?
- A. To hold rain water on the surface of the earth.
 - B. To recharge ground water.
 - C. To use water for the irrigation of crops.
 - D. To rear fish
12. Expand the abbreviation GAP

- A. Government Action Plan
- B. Government Agency for Pollution Control plan
- C. Ganga Action Plan
- D. Government Animal Protection Plan

13. Chipko movement is related to

- A. River protection
- B. Wildlife protection
- C. Forest protection
- D. Environment protection

14. Which of the following is the age-old concept of the water harvesting system in Madhya Pradesh?

- A. Bundhis
- B. Ponds
- C. Bandharas
- D. Nadis

15. Kulhs system of irrigation is common in

- A. Andhra Pradesh
- B. Uttar Pradesh
- C. Madhya Pradesh
- D. Himachal Pradesh

16. Maharashtra : Bandharas and Tals :: Rajasthan: _____

- A. Khadins and nadis
- B. Tanks and kattas
- C. Bandharas and pynes
- D. Bundhis and ahars

17. Tehri dam:River Ganga :: Sardar Sarovar _____

- A. River Tunga
- B. River Bhadra
- C. River Narmada
- D. River Kaveri

18. Sal forests are found in_

- A. Maharashtra
- B. Goa
- C. West Bengal
- D. Karnataka

19. Industries depending on forest resources are

- A. Wood and paper industries
- B. Food industries
- C. Chemical industries
- D. Software industries

20. Failure of sustainable management of ground water level is due to

- A. Less use of groundwater
- B. Overuse of groundwater and not adopting rain water harvesting
- C. Dams
- D. Rivers

21. A product that can no more be used for the original purpose but use it for some other useful purpose is

- A. Recycle
- B. Reduce
- C. Reuse
- D. Repurpose

22. The watershed management

- A. Increases production and income of watershed community
- B. Increases droughts and floods
- C. Decreases the biodiversity of downstream reservoirs
- D. Increases deforestation

Key answers

Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans	Qn no	Ans
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4	D	8	B	12	B	16	A	20	B		