INDEX

Chemistry

1 UNIT - I
Atomic Structure

MULTIPLE CHOICE QUESTIONS

1. Bohr's theory is valid for
   a) all atoms b) all ions
   c) any atom or ion having 1 electron d) all molecules
2. Which of the following shells has the least energy?
   a) L b) M c) K d) N
3. Who introduced elliptical orbits?
   a) Bohr b) Schrodinger c) Zeeman d) Sommerfeld
4. Which of the following quantum numbers give size and energy of stationary orbit?
   a) n b) l c) m d) s
5. The sub-shells present in L-shell are
   a) s and d b) s and p c) s, p and d d) s,p, d and f
6. The maximum value of l for n=5 is
   a) 5 b) 3 c) -5 d) 4
7. The number of d-orbitals present in n=3 is
   a) 1 b) 3 c) 5 d) 7
8. f- orbitals are present in
   a) K-shell b) L-shell c) M-shell d) N-shell
9. Among 3p, 4s, 3d and 4p, the orbital having least energy is
   a) 4s b) 3p c) 3d d) 4p
10. The '*l*' value of 'd' sub-shell is
    a) 0 b) 1 c) 2 d) 3
11. The clockwise spin of electron is represented by
    a) b) c) d)
12. Shape of s-orbital is
    a) dumbbell b) spherical c) double dumb bell d) tetrahedral
13. Elliptical orbits were introduced by
    a) Bohr b) Schrodinger c) Zeeman d) Sommerfeld
14. The number of 'm' values for l=3 is
    a) 7 b) 4 c) 2 d) 3
15. Among sub atomic particles which are known as nucleons
    a) Protons + Electrons b) Protons + Neutrons c) Neutrons+ Electrons d) Electrons + Positrons

16. Electron pairing takes place only after all the available degenerate orbitals are occupied by one electron each. This is known as
a) Aufbau principle b) Pauli's exclusion principle c) Hund's rule d) Avogadro's hypothesis

17. Rutherford suggested that atoms are
a) spherical b) cylindrical c) tetrahedral d) pyramidal

18. Orbitals will have
a) nodal regions b) antinodal regions c) crest regions d) compression regions

19. The force that pulls away the electron from the nucleus is
a) centripetal force b) attraction between electrons and the nucleus
c) electrostatic force d) centrifugal force

20. The value of Planck's constant is
a) b) c) d) 6.625×10^{-34} J.sec

21. The shape of p-orbital is
a) double-dumbbell b) spherical c) cylindrical d) dumbbell

22. The angular momentum of the electron revolving in a stationary orbit is equal to integral multiples of
a) $2\pi / h$ b) c) d)

23. The shape of s-orbital is
a) spherical b) elliptical c) dumbbell d) double dumbbell

24. Bohr's model could not account for
a) seebeck effect b) raman's effect c) condensation effect d) zeeman effect

25. The region in space where there is a finite probability of finding an electron is called
a) Atomic number b) Atomic orbital c) Atomic particle d) Ground state

26. The sub-states in a stationary state are called
a) orbits b) atomic orbitals c) shells d) atomic particles

27. The orbital whose l value is '0' is designated as
a) s orbital b) p orbital c) d orbital d) f orbital

28. Orbitals having same energy are called
a) valence shells b) empty shells c) degenerate shells d) overlappign shells

29. The quantum number that gives the information regarding the shape of substationary state is
a) Principal quantum number b) Azimuthal quantum number
c) Magnetic quantum number d) Spin quantum number

30. The number of states present in the sub stationary state 'd' is
a) 1 b) 3 c) 5 d) 7

31. The number of states present in the sub stationary state of 'g' is
a) 3 b) 5 c) 7 d) 9

32. The electronic configuration of copper is
a) b) c) d)

33. The negatively charged particle in the atom is
a) Electron b) Neutron c) Proton d) Positron

34. The number of sub atomic particles in an atom are
a) 1 b) 2 c) 3 d) 100

35. Neutral particle int eh nucleus of an atom is
a) Electron b) Neutron c) Proton d) Positron

36. The planetary model of the atom is proposed by
a) Thomson b) Rutherford c) Bohr d) Sommerfeld

37. By removing or adding an electron to an atom it becomes a
a) Ion b) Radical c) Molecule d) Neutron

38. Magnetic quantum number is related to
a) Size b) Shape c) Orientation d) Spin

39. Number of electrons that can be accommodated in f sub-shell is
a) 2 b) 8 c) 32 d) 14

40. The phenomenon of black body radiation was successfully explained by
a) Rutherford b) Thomson c) Max planck d) Schrodinger

41. Orbital without any directional character
a) 4 b) p c) d d) f

42. According to Sommerfeld's elliptical orbits the most penetrating orbit towards the nucleus is
a) s b) p c) d d) f

43. Any two electrons in an atom can have
a) equal values for n,l, m but not s b) equal values for l, m and s but not n
c) equal values for n, m and s but not l d) all the them are true

44. The fine structure of atomic spectrum is satisfactorily explained by
a) Bohr's atomic model b) Sommerfeld's model
c) Wave mechanical model of an atom d) Rutherford's model of an atom

45. The application of quantum mechanics to atomic structure is based largely on the research work os
a) Einstein b) Schrodinger c) Bohr d) Rutherford

46. "No two electrons will have all the four quantum number same". This is known as
a) Aufbau principle b) Hund's rule c) Pauli's exclusiion principle d) Ampere's rule

47. Neutrons can be found in atoms of all the elements except in
a) Carbon b) Helium c) Hydrogen d) Oxygen

48. Maximum number of electrons in a 3d orbital is
a) 2 b) 10 c) 6 d) 14

49. Which of the following orbitals does not exist?
a) 6s b) 2d c) 5p d) 1s

50. For ns orbital, value of magnetic quantum number is
a) -1 b) 0 c) +1 d) n

KEY

1) c	2) c	3) d	4) a	5) b	6) d	7) c	8) d
9) b	10) c	11) d	12) b	13) b	14) a	15) b	16) c
17) a	18) a	19) d	20) d	21) d	22) b	23) a	24) d
25) b	26) b	27) a	28) c	29) b	30) c	31) d	32) b
33) a	34) c	35) b	36) b	37) a	38) c	39) d	40) c
41) a	42) a	43) d	44) c	45) b	46) c	47) c	48) b
49) b	50) b						

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UNIT - II
Chemical Bond

1. Complete transfer of electrons fromone atom to another leads to the formation of
   a) ionic bond b) covalent bond c) coordinate covalent bond d) none
2. Co-ordinate covalent bond is present in
   a) HCl b) c) d)
3. Shape of is
   a) 'V' shape b)pyramidal c) Linear d) Tetrahedral
4. s-p overlap is present in
   a) b) c) d)
5. "V" shaped molecule is
   a) b) c) d)
6. Bond angle in water molecule is
   $2p^6 3s^2 3p^2$
   a) b) c) d)
7. s-s overlap is found in
   a) b) c) d)
8. p-p overlap is observed in
   a) b) c) d) HBr
9. End-on-end overlap results in
   a) Pi ( ) bond b) sigma ( ) bond c) hydrogen bond d) ionic bond
10. The number of valency electrons in carbon atom (Z=6) is
    a) 0 b) 2 c) 4 d) 6
11. An element has the electronic configuration . Its valence electrons are
    a) 2 b) 6 c) 3 d) 4
12. The octet rule is not valid for the molecule
    a) b) c) d)
13. The valency shell of calcium contains
    a) 2 electrons b) 4 electrons c) 6 electrons d) 8 electrons
14. Side-on overlap results in
    a) sigma ( ) b) Pi( ) bond c) bond d) ionic bond

15. A molecule having double bonds

a) b) c) d)

16. Example of a molecule having Pi ( ) bond

a) b) c) d)

17. Which of the following is non-linear?

a) b) c) d)

18. In a double bond

a) Two pi ( ) bonds b) two sigma ( ) bonds
c) Three sigma ( ) bonds d) none

19. In a triple bond

a) one sigma ( ) and two pi ( ) bonds b) one pi ( ) and two sigma ( )bonds
c) three sigma ( ) bonds d) three pi ( ) bonds

20. Which of the following has sigma bond?

a) b) c) d)

21. Which of the following has triple bond?

a) b) c) d)

22. Which of the following has only sigma ( ) bond?

a) b) c) q d) none

23. The donor in Ammonia boron tri fluoride is

a) N b) B c) N and B d) None

24. The shape of Ammonia molecule is

a) pyramidal b) tetrahedral c) trigonal planar d) trigonal bi pyramidal

25. The shape of Boron trifluoride molecule is

a) Planar triangular b) Linear c) Trigonal bi-pyramidald) Tetrahedral

KEY

1) a	2) c	3) c	4) d	5) d	6) a	7) c	8) a
9) b	10) c	11) d	12) c	13) a	14) b	15) a	16) b
17) a	18) c	19) a	20) b	21) c	22) c	23) a	24) a
25) a							

3 UNIT - III
Perodic Classification

1. In a Dobereiner triad, the atomic weight of middle element is
   a) the sum of the atomic weights of first and the third elements
   b) the product of the atomic weights of first and the third elements
   c) the ratio of the atomic weights of first and the third elements
   d) the mean of the atomic weight of first and the third elements
2. Mendeleef's periodic table is based on the
   a) atomic weight b) atomic number c) atomic radius d) atomic volume
3. The units of atomic radius are
   a) angstroms b) k.joules. mol^{-1} c) eV d) K.Cal.mol^{-1}
4. The ionization potential in a group from top to bottom
   a) decreases b) increases c) remains the same d) increases and decreases
5. The law of octaves applies to
   a) B,C,N b) As, K, Ca c) Be, Mg, Ca d) None
6. The elements which is cited as an example to prove the validity of mendeleef's periodic law is
   a) indium b) hofnium c) gallium d) helium
7. Which of the following have the minimum atomic radius?
   a) N b) Na c) K d) F
8. f-block elements are also called
   a) transition elemtns b) Transuranic elements c) Alkali metals d) Inner transition elements
9. Alkali metals are powerful
   a) oxidants b) reductants c) radioactive elements d) none
10. In the periodic table, elements of the same group have the same
    a) atomic number b) atomic weight c) valence electrons d) atomic size
11. Addition of oxygen to a compound is termed as
    a) oxidation b) neutralisation c) reduction d) dsproportionation
12. The number of electrons in the outermost shell of an inert gas is
    a) 4 b) 6 c) 8 d) 10
13. The d-block of elements are also called
    a) Representative elements b) Transition elements
    c) Inner transition elements d) Halogens
14. The lightest metal is
    a) Li b) H c) He d) Na

15. Size of chloride ion is
a) bigger than chlorine atom b) smaller than chlorine atom
c) same as chlorine atom d) none

KEY

1) d	2) a	3) a	4) a	5) c	6) c	7) d	8) d
9) b	10) c	11) a	12) c	13) b	14) a	15) a	

4 UNIT - IV
Alkaline Earth Metals

1. is the electronic configuration of
   a) Be b) Mg c) Ca d) Sr
2. Which of the following property increases from Be to Ra?
   a) EN b) Ionization energy c) Atomic size d) None
3. CaO is
   a) acidic b) basic c) neutral d) amphoteric
4. Which of the following metal gives peroxide in addition to oxide when burnt in excess of air?
   a) Be b) Mg c) Ca d) Ba
5. During the electrolytic extraction of Mg, the cathode used is
   a) iron pot b) graphite c) KCl and NaCl d) porcelain tube
6. Which of the following is an ore of Mg?
   a) Beryl b) Barytes [illegible] d) Hematite
7. Dolomite is a mineral of
   a) Mg b) Ca c) Ba d) Al
8. Which is the Alkaline Earth metal in the following
   a) Potassium b) Sodium c) Rubidium d) Radium
9. Carnallite is
   a) b) c) d)
10. Chemical formula of Epsom salt
    a) b) c) d)
11. The atomic size in group IIA elements from Be to Ra
    a) increases b) decreases c) doesn't change d) constant
12. Melting point of Mg
    a) b) c) doesn't change d) constant
13. Magnesium reacts with hot water and liberates the following gas
    a) b) c) d)
14. Magnesium burns in air and forms the following compound in addition to MgO
    a) b) c) d)
15. The following alkaline earth metal is used in making deepavali crakers
    a) Be b) Ca c) Mg d) Ba

16. Oxides of alkaline earth metals are
a) basic b) acidic c) amphoteric d) neutral

17. By reducing with lithium aluminium hydride, the following compound is obtained
a) b) c) d)

18. The chemical formula of lithium aluminium hydride is
a) b) c) d)

19. A compound which is hygroscopic
a) MgO b) c) d)

20. The following metal is obtained by electrolytic reduction of molten magnesite
a) Ca b) Sr c) Ba d) Mg

KEY

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

O_3

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UNIT - V
Solutions

1. 10 grams of is dissolved in 190 grams of water. The W% of solution is
   a) 20 b) 10 c) 5 d) 2.5
2. The amount of oxalic acid (mol.wt=126) required to prepare 100 ml of 0.2 M solution is
   a) 1.26 g b) 2.52 g c) 5.04g d) 0.63 g
3. Four grams of NaOH (mol. wt = 40) is dissolved in 34.2 grams of water (mol.wt = 18). The mole fraction of NaOH is
   a) 0.1 b) 0.2 c) 0.05 d) 0.025
4. 4 ml. of alcohol is dissolved in 36 ml.of water. The volume percentage of solution is
   a) 10 b) 20 c) 30 d) 40
5. Solubility of a substance depends on
   a) nature of solute b) nature of solvent c) temperature d) all
6. When 10gm of is present in 120 gms of aqueous solution, the weight percentage is
   a) b) c) d)
7. Molecular weight of is
   a) 126 b) 106 c) 120 d) 130
8. The chemical name of sugar is
   a) glucose b) lactose c) fructose d) sucrose
9. If more solute requird for saturation is present in a solution, it is called
   a) saturated solution b) supersaturated solution
   c) unsaturated solution d) none of these
10. The component in a solution which is relatively less in quantity is called
    a) solute b) solvent c) solution d) mixture
11. The component present in a solution which is relatively large in quantity is called
    a) mixture b) solute c) solution d) solvent
12. The no. of moles of solute present in 1000 grams of solvent is known as
    a) weight percentage b) volume percentage c) molarity d) mole fraction
13. If the solvent used to prepare a solution with water, the solution is called
    a) amalgam b) alcoholic solution c) saturated solution d) aqueous solution
14. The compounds that are polar in nature
    a) ionic compounds b) covalent compounds
    c) coordinate covalent compounds d) polar covalent compounds
15. An example of polar solvent is
    a) Kerosene b) Benzene c) Alcohol d) Water

16. If the mole fraction of solute is 0.3, mole fraction of solvent is
a) 0 b) 0.3 c) 0.7 d) 9.7

17. In is the mole fraction of solute and is the mole fraction of solvent, then =
a) 0 b) 1 c) 10 d)

18. The positively charged ions when NaCl gets ionized is
a) b) c) d)

19. The process of a molecule giving rise to ions is called
a) reduction b) neutralisation c) oxidation d) ionization

20. An example of a strong elecrolyte
a) b) sucrose c) d)

21. One of the following is a weak electrolyte
a) NaCl b) KCl c) d)

22. Identify the non-electrolyte among the following
a) b) c) Urea d)

23. The extent of ionization increases by increase of
a) light b) dilution c) concentration d) none

24. The weight of required to make 250 ml of 0.1 M solution is
a) 1.32 gm b) 1.989 gm c) 2.65 gm d) 3.96 gm

25. When 2.3 gm of (m.wt= 46) is dissolved in 500 c.c of water, the molarity of the solution is
a) 0.01 b) 0.05 c) 0.1 d) 2

26. A homogeneous mixture of two or more substances is called
a) solute b) solution c) solvent d) liquor

27. How many moles of water are present in 180g of water?
a) 1 mole b) 18 moles c) 10 moles d) 10 moles

28. A hamogeneous mixture of two or more substances is called
a) solute b) solution c) solvent d) liquior

29. The mole fraction of A in a solution containing 0.2 mole each of A,B and C is
a) 0.2 b) 0.333 c) 0.5 d) 0.66

30. If more solute is present in solution than required for saturation, it is called
a) super saturated solution b) saturated solution
c) unsaturated solution d) none

KEY

1) c	2) b	3) c	4) a	5) d	6) a	7) b	8) d
9) b	10) a	11) d	12)c	13) d	14) a	15) d	16) c
17) b	18) a	19) d	20) d	21) d	22) c	23) b	24) c
25) c	26) b	27) c	28) b	29) b	30) a		

6 UNIT - VI
Acids, Bases and Salts

1. The colour of methyl orange indicator in acidic medium is
   a) yellow b) green c) orange d) red
2. The colour of phenolphthalein indicator in basic solution is
   a) yellow b) green c) pink d) orange
3. The of solution whose is is
   a) 1 b) 10 c) -4 d) +4
4. If the p^H of solution is 8, its is
   a) b) c) d) 8
5. The value of changes with changing
   a) b) [illegible] temperature d) pressure
6. Weak acids ionize upto
   a) 50% b) 100% c) less than 100% d) more than 100%
7. The heat of neutralisation for a strong acid and a strong base is
   a) 13.7 k. cal b) 13.4 k. cal c) 0 k. cal d) 0.3 k. cal
8. CaO is
   a) acidic b) basic c) neutral d) amphoteric
9. of water is
   a) 14 b) 7 c) 0 d) none
10. If the of a solution is 10, its is
    a) b) c) d)
11. Quantity of heat of neutralisation between a strong acid and a strong base is
    a) 13.7 k. cal/mole b) 1.37 k. cal/mole c) 13.7 cal/mole d) 1370 cal/mole
12. The P^H of a solution is defined by the expression
    a) b) c) d)

13. The strongest acid of the following

a) b) c) d)

14. The concept of was introduced by

a) sorensen b) levls c) guldberg and wage d) arrhenius

15. The scale of acidity (or) basicity is

a) absolute scale b) scale c) kelvin scale d) none

KEY

1) d	2) c	3) d	4) c	5) c	6) c	7) a	8) b
9) b	10) c	11) a	12) d	13) b	14) a	15) b	

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UNIT - VII

Chemistry of Carbon Compounds

1. The refractive index of diamond is
   a) 4.3 b) 2.45 c) 4.5 d) 5.42
2. Bond length (in units) in graphite is
   a) 2.45 b) 1.42 c) 4.21 d) 2.81
3. gas is cooled to form dry ice by sudden expansion. This is called
   a) einstein effect b) rutherford effect c) joul-thomson effect d) bohr effect
4. The name of is
   a) hexane b) octane c) methane d) propane
5. Alkanes undergo
   a) addition reactions b) substitution reactions c) condensation reactions d) polymerization reactions
6. -COOR is called
   a) acid group b) amine group c) ester group d) ketone group
7. Which of the following is an alkane?
   a) b) c) d)
8. An example for C-COOR functional
   a) b) c) d)
9. The functional group of Ketone is
   a) -OH b) -CHO c) -O- d) >C=O
10. - is called
    a) acid group b) amine group c) ester group d) ketone group
11. Chief component of cooking gas is
    a) butane b) methane c) ethane d) octane
12. Dry ice is
    a) solid b) solid c) solid d) solid
13. Diamong and graphite are
    a) isomers b) isomorphous c) isotones d) allotropes
14. Hardest known material in nature is
    a) diamond b) graphite c) granite d) none

15. Diamond and graphite have structures
a) tetrahedral and square planar
b) tetrahedral and octahedral
c) tetrahedral and hexagonal
d) hexagonal and square planar

KEY

1) b	2) b	3) c	4) b	5) b	6) c	7) a	8) a
9) d	10) b	11) a	12) c	13) d	14) a	15) c	

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UNIT - VIII

Carbohydrates and Proteins

1. Which of the following is the sweetest
   a) sucrose b) glucose c) fructose d) maltose
2. A polysaccharide is
   a) Glucose b) Fructose c) Sucrose d) Starch
3. Aldoses are
   a) polyhydroxy ketones b) polyhydroxy aldehydes .
   c) polyhydroxy amines d) polyhydroxy esters
4. Hexoses contain
   a) 3 carbons b) 4 carbons c) 5 carbons d) 6 carbons
5. In the Tollen's test glucose reduces
   a) Ag metal to ion b) ion to Ag metal c) to $Cu^{+}ion$ d) Cu^{+} ion to ion
6. Defecation is addition of
   a) b) c) d)
7. Acidity in the juice is removed by adding
   a) b) c) d)
8. The sugar content of molasses is
   a) 10% b) 20% c) 50% d) 90%
9. Which of the following is not a byporoduct of sugar industry?
   a) Bagasse b) Press mud c) Sugar d) Molasses
10. The chief use of ethyl alcohol is
    a) For drinking b) As solvent c) As medicine d) For making beverages
11. Which of the following is used to get absolute alcohol from rectified spirit?
    a) b) c) d) pyridine
12. Consumption of denatured spirit causes
    a) unconsciousness b) blindness c) ulcers in the intestine d) damage to lungs
13. Benedict's solution contains
    a) silver nitrate b) copper carbonate c) copper oxide d) copper sulphate
14. The spent cane is called
    a) Yeast b) Zymase c) bagasee d) press mud
15. Sucrose is an example of
    a) monosaccharides b) polysaccharides c) oligosaccharides d) none

16. Starch is an example of
a) monosaccharide b) polysaccharide c) oligosaccharide d) none

17. The general formula of polysaccharides
a) b) c) $(C_6H_{10}O_5)_n$ d) none

18. Sweetest sugar is
a) glucose b) sucrose c) lactose d) fructose

19. Yeast produces enzymes namely
a) aldose b) ketose c) invertase and zymased) None

20. The widely used solvent next to water is
a) Sugar b) Benzene c) d) Alcohol

KEY

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

$(C_6H_{10}O_5)_n$

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UNIT - IX
Oils and Fats

1. The chief sources of oils is
   a) petroleum b) coal and coke c) animals and plants d) soaps and detergents
2. Which of the following is a saturted fatty acid?
   a) myristoleic acid b) lauric acid c) palmitoleic acid d) linoleic acid
3. The cation of soap useful for dry cleaning is.....
   a) b) c) Triethanol ammonium d)
4. Shaving soap contains excess of..
   a) builders b) perfume c) glycerol d) stearic acids
5. Detergents are use ful even in hard water because.....
   a) They do not react with hard water ions b) They react with hard water ions but do not form precipitate
   c) They destroy the hard water ions d) They sediment undesirable ions in hard water
6. The catalyst used in the Hydrogenation of oils is....
   a) Al b) Ni c) Zn d) Mg
7. Which one is a unsaturated fatty acid
   a) Oleic acid b) stearic acid c) Palmitic acid d) None
8. The triesters of glycerol are called
   a) Fatty acids b) Detergents c) Oils d) Soaps
9. Saponification of oils produces
   a) Ethanol b) Glycerol c) Fatty acid d) Glycol
10. OH groups present in glycerol are
    a) 1 b) 2 c) 3 d) 4

KEY

1) c 2) b 3) c 4) d 5) b 6) b 7) a 8) c
9) b 10) c

10 UNIT - X
Chemistry and Industry

1. The second largest in terms of population is:
   A) China B) United States Amer icaC) Russia D) India
1. Cement is mixture of:
   a) Sodium silicate and gypsum b) Calcium silicates and calcium aluminates
   c) Sand, clay and felspar d) Calcium carbonates and sand
2. Glass - blowing is possible with:
   a) Flint glass b) Pyrex glass c)Soda glass d) Hard glass
3. Terra - cotta articles are:
   a) Glazed b) Porous c) Hard d) Soft
4. Chromophore:
   a) soaks the the fibre b) binds the dye to fibre c) impart colour to the fibre
   d) intensifies the column of the dye
5. Drugs which act on blood circulation are:
   a) Hormones b) Vitamins c) Cardio-vascular d) antibiotics
6. Chief component of cooking gas:
   a) butane b) ethane c) methane d) octane
7. Which of the following is a mixed fertilizer?
   a) b) c) KNO_3 d) Nitrophosk
8. The type of glass used for making bottle is:
   a) Pyrex b) Boro - silicate c) Soda glass d) Quartz
9. The first synthetic dye prepared by the scientist:
   a) W.H.Perkin b) Fleming c) Aspidin d) C.V. Raman
10. An example for Auxochrome is:
    a) -NO b) $-NO_2$ c) $-SO_3H$ d) c = s
11. During setting of cement which of the following acts as binder?
    a) CaO b) $CaCO_3$ c) $Ca(OH)_2$ d) $CaSiO_3$
12. Glass is a mixture of silicates of:
    a) Na, Mg b) Mg, Ca c) Na, Zn d) Na, Ca

13. Raw materials to manufacture glass:
    a) b) $MgCO_3CaCO_3;SiO_2$
    c) d) $CaSiO_3;Na_2CO_3SiO_2$
14. Annealing is:
    a) slow heating b) strong heating c) slow and homogeneous cooling
    d) fast cooling
15. Addition of cullent in the manufacturing glass:
    a) to get red colour b) to harden glass c) decrease melting point
    d) decrease melting point
16. Which of the following can be used in window glass?
    a) Soda glass b) Pyrex glass c) Flint glass d) Hard glass
17. Water soluble adhesive used for paper:
    a) Shellac b) Casein c) Gum Arabica d) Animal glue
18. Main costituent of natural fibres:
    a) Cellulose b) Cellulose acetate c) Cellulose Nitrate d) None
19. Dacron fibres can be obtained by:
    a) Spinning b) Melt spinning c) Wet spinning d) Dry spinning
20. Emulsion of oil and water:
    a) Cold cream b) nail polish c) pain balm d) none
21. Quality of cold cream can be improved by:
    a) Cullet b) gall c) borax d) cellulose
22. Nail polish can be removed by:
    a) Cellulose acetate b) amyl acetate c) cellulose nitrate d) none
23. Silicate present in powder:
    a) $MgSiO_3$ b) CaSiO c) Na_2SiO_3 d) None
24. Blue dye can be obtained from;
    a) Snail b) Madder roots c) Indigo leaves d) None
25. Dye that can be obtained from roots of Madder Plant:
    a) Blue b) Turkey red c) Tyrian purple d) Olive green
26. First synthetic dye:
    a) Phenyl red b) Turkey red c) Perkin violet d) Tyrian purple
27. Which of the following is call Aniline yellow?
    a) o-amino azobenzene b) m- amino azobenzene c) p-amino azobenzene d) None
28) Auxochrome in Alizarin:
    a) -COOH b) -OH c) $-NH_2$ d) $-SO_3H$

29. Chromophore of Azo dyes:
a) $-NO_2$ b) -NO c) N = N d) C = C

30. Dyes having C = o as chromophore:
a) Niro dyes b) Nitroso dyes c) Azo dyes d) Quinone dyes

31. Convert into mordant dyes on teacting with;
a) an acid b) a base c) metal ions d) non - metallic ions

32. Insulin is a:
a) Vitamin b) Chemotherapeutic drug
c) Cardio vascular drug d) Hormone

33. The common binder used in Table making :
a) Gum Arabica b) Epoxy Resin c) Gelatin d) None

34. Acetyl salicylic acid is:
a) Asprin b) Paracetamol c) Tetracyclin d) Brufen

35. Chemically paracetamol is:
a) o - Hydroxy acetanilide b) p - Hydroxy acetanilide
c) m - Hydroxy acetanilide d) None

36. Gasoline is:
a) Kerosene b) Petrol c) Diesel oil d) Petroleum

37. The by-product in refining petroleum before fractionation?
a) Pitch b) Road Tar c) Gall d) Asphalt

38. Cracking of heavier fraction of petroleum products is for making:
a) Petrol b) Pitch c) Diesel d) Crude oil

39. The main constituent of cooking gas;
a) Methane b) Propane c) Butane d) Ethane

40. Natual gas contains mainly:
a) Methane b) Ethane c) Propane d) Butane

41. Which of the following is a primary nutrient of plants:
a) K b) s c) Mg d) Mn

42. Which of the folloeing is a secondary nutrient of plants?
a) N b) P c) Zn d) Na

43. Which of the following is a micronutrient of plants?
a) K b) S c) Mg d) Fe

44. Microfertilizers contain which of the following?
a) Na b) K c) B C) Mg

45. Commercially abailable mixed fertilizer:
a) Urea b) Nitrophos K
c) Di and tri ammonium phosphate d) Factumphos

46. Cement is a mixture of silicates and aluminates of:

a) Na b) Ca c) Mg d) Zn

KEY

01) B	02) B	03) B	04) C	05) C	06) A	07) D
08) C	09) A	10) C	11) C	12) D	13) A	14) C
15) D	16) A	17) C	18) A	19) B	20) A	21) C
22) B	23) A	24) C	25) B	26) C	27) C	28) B
29) D	30) D	31) C	32) D	33) C	34) A	35) B
36) B	37) D	38) A	39) C	40) A	41) A	42) D
43) B	44) C	45) B	46) B			