

1. IOE Syllabus for B.E./B.Arch. Entrance Examination Curriculum for Prasad:

Subject: English

Full Marks: 22

Comprehension of reading passage on a variety of topics and style with special references:

(i) General English and (ii) Technical English.

Grammars:

Familiarity with the following aspects:

Parts of Speech, Basic Grammatical Patterns/Structures, Tense and Aspects, Conditional sentences, Verbal: infinitives, Participles and Gerunds, Direct and Indirect Speech, Active and Passive Voice, Kinds of sentences, Transformation of sentences, Concord/Agreement, Vocabulary, Use of Prepositions, Idiomatic expressions, Punctuation, Phonemes and Phonetic Symbols, Word Stress.

Subject: Chemistry

Full Marks: 20

Language of Chemistry & Physical Chemistry:

Symbols, formulate valency and chemical questions, Problems based on chemical equations (relation with weight and weight, and weight and volume.

Atomic Structure:

Study of Cathode rays, and discovery of electrons, Rutherford's X-ray scattering experiment and discovery of nucleus. Rutherford model of atom., Bohr model of atom, Elementary concept of quantum numbers, Electron configuration of the elements.

Electronics Theory to Valency:

Octet rule, Electrovalency, covalency and coordinate valency, General characteristics ionic and covalent compounds.

Oxidation and Reduction:

Classical definitions, Electronic interpretations of oxidation and reduction, Balancing of redox equations by oxidation number method.

Periodic Classification of Element:

Mendeleev's periodic Law, Periodic Properties viz. Ionization potential, electronegativity and atomic radii, and their variation in the periodic table; Equivalent weight and Atomic: Concept of equivalent weight, and its determination by hydrogen displacement method and oxide method, Concept of atomic weight, equivalent weight and valency, determination of atomic weight using Dulong and Petit's rule.

Molecular Weight and Mole:

Avogadro's hypothesis and its deductions, Avogadro number and concept of mole, Determination of molecular weight by Victor Meyer's method; Electro-Chemistry; Electrolytes and non-electrolytes, strong electrolytes and weak electrolytes, Faraday's laws of electrolysis, Solubility product principle and its application in qualitative analysis; Theories of Acids and Bases: Arrhenius theory, Bronsted and Lowry theory, Lewis theory; Volumetric Analysis Equivalent weights of acids, base and salts, Principles of acidimetry and alkalimetry, pH and pH scale.

Non-Metals:

Water: Hard water and soft water, Causes and removal of hardness of water; Nitrogen and its Compounds: Nitrogen cycle, Preparation of ammonia and nitric acid in the lab, and their properties, Manufacture of ammonia and nitric acid, Sulphur and its Compound.

Allotropy of sulphur, Preparation of hydrogen sulphide, Sulphur dioxide in the lab, and their properties, Manufacture of sulphuric acid by contact process; Halogens and Their Compound: Position of halogens in the periodic table, Preparation of chlorine and hydrogen chloride in the lab, and their properties.

Metals:

Compounds of Metals: General methods of preparation and properties of oxides, hydroxides, chlorides, nitrates, sulphates and carbonates of metals; Sodium: Extraction of Sodium (Down's process), Manufacture of caustic soda sodium carbonate; Copper: Extraction of copper from copper pyrite, Manufacture of Blue vitriol; Zinc:

Extraction of zinc from zinc blend, Galvanization; Iron: Extraction of cast iron from hematite, Cast iron, steel and wrought iron, Types of steel, Manufacture of steel.

Organic Chemistry:

Sources and Purification of organic Compounds: Characteristics of Organic compounds, Sources of organic compounds, Purification of organic compounds; Classification and nomenclature of organic Compounds: Functional group, homologous series, and isomerism (structural only), Classification of organic compounds, Common names, and I.U.P.A.C. naming system.

Saturated and unsaturated Hydrocarbons & Aromatic compound:

Preparation and properties of methane, Preparation and properties of ethylene and acetylene, Alkyl Halides: Preparation and properties of ethyl iodide; Aromatic Compounds: Structure of benzene, Preparation of benzene in the laboratory, Properties of benzene.

Subject: Physics

Full Marks: 40

Mechanics:

Dimensions, Equations of motion, Motion of projectile. Laws of motion, Addition and subtraction of vectors, Relative velocity, Equilibrium of forces, Moments, Centre of mass, Centre of gravity, Solid friction, Work, power and energy, Conservation of energy, Angular speed, Centripetal force, Moment of inertia, Torque on a body, Angular momentum, Rotational kinetic energy, Laws of gravitation, Gravitational intensity, Gravitational potential, Velocity of escape, Simple harmonic motion, Energy of SHM, Hooke's Law, Breaking stress, Modules of elasticity, Energy stored in stretched wire, Surface tension phenomenon, Surface energy, Capillarity, Fluid pressure, Pascal law of transmission of fluid pressure, Archimedes' principle, Flotation Stokes' law, Terminal velocity.

Heat:

Heat and temperature, Temperature scale, Measurement of heat energy, Specific heat capacity, Latent heat, Saturated and Unsaturated vapour, Relative humidity and dew point, First law of thermodynamics, Reversible isothermal and adiabatic changes, Gas laws, Kinetic theory of gasses, second law of thermodynamics, Carnot's engine, Transfer of heat, Conduction, Convection and radiation, Expansion of solid, liquid and gas.

Optics:

Formation of images by plane and curves mirrors, Refraction of light through plane surfaces. Total internal reflection, Critical angle, Refraction through prism, Maximum and minimum deviation, formation of images by lenses, Dispersion, Achromatic combination of lenses visual angle, Angular magnification Defect of vision, Telescope and microscope, Wave theory of light: introduction to Huygen's principle and its application interference diffraction and polarization of light.

Sound:

Damped vibration, Forced oscillation, Resonance, Progressive waves, Principle of superposition, Velocity of sound in solid, liquid and gas: Laplace's correction, Characteristics of Sound wave, Beat phenomenon, Doppler effect, Stationary waves, Waves in pipes, Waves in String.

Electricity:

Electric Charge, Gold leaf electroscope, Charging by induction Faraday's ice pail experiment, Coulomb's law, Permittivity, Electric field, Gauss's law and its application, electric potential, Capacitors, Ohm's law, Resistance – combination of resistances, emf, Kirchhoff's law and its application, Heating effect of current, Thermoelectricity, Chemical effect of current, Potentiometer, Wheatstone bridge, Galvanometer, Conversion of galvanometer into voltmeter and ammeter. Magnetic Field, Earth's magnetism, Magnetic Flux, Force on a current carrying conductor, Ampere's law, Biot-Savart's law and their applications, Solenoid, Electromagnetic induction, AC circuits.

Atomic Physics and Electronics:

Discharge electricity through gases, Cathode rays, Electronic mass and charge Bohr's theory of atomic structure, Energy level, X-rays, Photoelectric effect Radioactivity, Nuclear–fission and fusion, Semiconductors, Junction Transistor.

Subject: Mathematics

Full Marks: 40

Set and Function:

Set and relations, Functions and graphs, Algebraic, Trigonometric, Exponential, Logarithmic and hyperbolic functions and their inverses.

Algebra:

Determinants, matrices, Inverse of a matrix, uses of complex numbers, Polynomial equations, sequence and series, Permutation and combination, Binomial theorem, exponential, Logarithmic series.

Trigonometry:

Trigonometric equations and general values, Inverse trigonometric functions, Principal values, properties of triangles; Centroid, incentre, Orthocentre and circumcentre and their properties.

Coordinate Geometry:

Coordinates in a plane, Straight lines, Pair of lines, Circles, Conic section: Parabola, Ellipse and Hyperbola, Standard equations and simple properties, Coordinates in space, Plane and its equation.

Calculus:

Limit and continuity of functions, Derivatives and application of derivative—Tangent and normal, Rate of change, differentials dy and actual change Δy . Maxima and Minima of a function; Antiderivatives (Integrations): rule of Integration, Standard Integrals, Definite integral as the limit of a sum. Application to areas under a curve and area between two curves.

Vectors:

Vectors in space, addition of vectors, Linear combination of vectors, Linearly dependent and independent set of vectors, Scalar and vector product of two vectors, simple applications.

Subject: Engineering Aptitude Test

Full Marks: 18

1. Concept of Polygons (Triangle, Square, Pentagon, Hexagon, Octagon), Circle, Inscribing and Circumscribing Circle; Arcs and Tangents; Introduction to Geometrical Solids (Cylinder, Cone, Prism and Pyramid)

Orthographic Views of Lines and Surface (Horizontal, Vertical and Inclined), Orthographic Views of Geometrical Solids, Objects consisting of Plane Surfaces, Curved Surfaces and Rectangular/Cylindrical holes.

2. Two-Stroke and Four Stroke Engines, Petrol and Diesel Engines, Renewal Energy.

3. Traffic Signals, Cement, Aggregates, Bricks and Stones.

4. Series and Parallel Electrical Circuits, Energy Resources, Transformers, Electrical Energy Generation, Measurement of Electric Current, Voltage and Power.

5. Number system, Diode and Transistor, Logic Gates, Memory, CPU, Input/Output Devices, Operating Systems, Internet and Email.

2. Summary of Marks Distributions (Approx.)

In B.E./B.Arch. Entrance examination, the questions shall be 3 hours duration carrying 175 marks. Each questions in of an objective type with multiple-choice answers. The questions are divided into two sections: Section I and Section II. Section I questions carries one marks and Section II carries two marks each: Subject, Topics and marks allocated to each topics are given in the table below.

S. N	Subject/Topics	Number of Questions	Marks (Total)	Section I	Section II
	English	18	22	Marks=14	Marks=8
1.	Reading passage	4	8	–	4×2=8
2.	Grammar	10	10	10×1=10	–
3.	Vocabulary	2	2	2×1=2	–
4.	Phonemes and Stress	2	2	2×1=2	–
	Chemistry	16	20	12	8
1.	Physical chemistry	9	12	6×1=6	3×2=6
2.	Inorganic chemistry	4	5	3×1=3	1×2=2
3.	Organic chemistry	3	3	3×1=3	–
	Physics	25	40	10	30
1.	Mechanics	6	10	2×1=2	4×2=8
2.	Heat and Thermodynamics	3	4	2×1=2	1×2=2
3.	Wave and Optics	5	8	2×1=2	3×2=6
4.	Electricity and Magnetism	6	10	2×1=2	4×2=8
5.	Modern Physics and Electronics	5	8	2×1=2	3×2=6
	Mathematics	25	40	10	30
1.	Set and Function	2	3	1×1=1	1×2=2
2.	Algebra	6	10	2×1=2	4×2=8
3.	Trigonometry	2	3	1×1=1	1×2=2
4.	Coordinate geometry	6	10	2×1=2	4×2=8
5.	Calculus	7	11	3×1=3	4×2=8
6.	Vectors	2	3	1×1=1	1×2=2
	Engineering Aptitude	16	18	14	4
1.	Architecture Aspects	2	4	–	2×2=4
2.	Mechanical Aspects	3	3	3×1=3	–
3.	Civil Aspects	4	4	4×1=4	–
4.	Electrical Aspects	3	3	3×1=3	–
5.	Electronics & Computer Aspects	4	4	4×1=4	–

3. IOE Model Questions For Prasadi Students

TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
B.E. Model Entrance Examination -2015

Attempt all Questions

Choose the correct answer and blacken the appropriate bubble using gel pen on answer sheet.

Full Marks: 140

Time: 2 hour

Select the best alternatives:

Section-I

(60 × 1 = 60)

1. If $\cos 3\theta - \cos \theta = 0$, then general values of $\theta =$
 - a. π
 - b. 2π
 - c. $2n\pi$
 - d. $2n\pi$
2. Which one of the following may NOT be true for an onto function $f: A \rightarrow B$?
 - a. $n(A) \geq n(B)$
 - b. $f(A) = B$
 - c. No horizontal line cuts its graph at more than one point
 - d. No vertical line cuts its graph at more than one point
3. If $f(x)$ has roots α and β then $f(1/x) = 0$ has roots equal to:
 - a. α, β
 - b. $-\alpha, -\beta$
 - c. $-\alpha, -\beta$
 - d. $-\alpha, \beta$
4. For a square matrix A , which of the following is true?
 - a. $|A| = |A^T|$
 - b. $|A^{-1}| = |A|$
 - c. $|A^{-1}| = \frac{1}{|A|}$
 - d. $A(\text{adj. } A) = |A|I$
5. If $f'(x) = e^x + 1$ and $f(0) = 1$ then $f(x)$ equals:
 - a. $e^x + \tan^{-1}x$
 - b. $e^x + 2$
 - c. $e^x + \sin^{-1}x$
 - d. $\tan^{-1}x - 2$
6. $\int \sec x \, dx =$
 - a. 0
 - b. $\frac{1}{2}$
 - c. 1
 - d. 2
7. $\cosh^{-1} \sec x =$
 - a. $\sec x$
 - b. $\sin x$
 - c. $\tan x$
 - d. $\text{cosec } x$
8. Two lines $y = mx + c$ and $y = mx + d$ are on the opposite sides of the origin if
 - a. $c = -d$
 - b. c and d are of same signs
 - c. c and d are of opposite signs
 - d. $c = d$
9. If the planes $x + 2y + kz = 0$ and $2x + y - 2z = 0$ are at right angles then the value of k is
 - a. 4
 - b. 2
 - c. -2
 - d. 1
10. If $\cos \theta = 0$ then the angles θ between is given by
 - a. $\cos \theta = 0$
 - b. $\cos \theta = 0$
 - c. $\cos \theta = 0$
 - d. none
11. Which of the following pairs of words does not have the same vowel?
 - a. book-bull
 - b. blood-flood
 - c. gate-gay
 - d. could-cool
12. A mono syllable word in isolation is _____ stressed.
 - a. never
 - b. always
 - c. often
 - d. sometimes
13. Sporadic means:
 - a. occasional
 - b. frequency
 - c. continuously
 - d. never ending
14. A short journey for pleasure _____.
 - a. itinerary
 - b. jaunt
 - c. junta
 - d. stroll
15. She came when _____.
 - a. it had rained
 - b. it was raining
 - c. it rained
 - d. it has rained
16. Japan _____ the country of island.
 - a. called
 - b. is called
 - c. seems to be called
 - d. none of these
17. Provided that she was good, she _____ attains this position.
 - a. will attain
 - b. had
 - c. would
 - d. had attained

- d. the extent to which they may be affected in electric or magnetic field.
37. Which of the following is the strongest base?
 a. NO_3^- b. Cl^- c. CH_3COO^- d. H_2O
38. Which of these molecules is polar?
 a. CO_2 b. BF_3 c. SO_2 d. CH_4
39. The number of water molecules in 1 liter of water is
 a. 18 b. 18×1000 c. N_A d. $55.55N_A$
40. Which of following is used to remove temporary hardness of water?
 a. slaked lime b. plaster of Paris c. Epsom d. Hydrolith
41. On heating sodium metal in a current of dry ammonia gas the compound formed is
 a. sodium nitride b. sodium hydride c. sodium amide d. sodium azide
42. Near the top of the blast furnace used for the extraction of iron, the metal oxides are reduced to spongy iron by:
 a. C b. CO c. CO_2 d. CaCO_3
43. When concentration H_2SO_4 is added to dry KNO_3 brown fumes evolve. These fumes are of
 a. SO_2 b. SO_3 c. NO_2 d. NO
44. Which compound was first synthesized in the laboratory from its elements?
 a. urea b. acetic acid c. acetylene d. methyl alcohol
45. The IUPAC name for $\text{OHC}-\text{CH}_2-\text{COOH}$ is:
 a. prop-1-al-3-oic acid b. prop-3-al-1-oic-acid
 c. 2-fomylethanoic acid d. 2-carboxy ethanal
46. Which of these can give both ethane and methane in single step?
 a. CHOONa b. CH_3Cl c. CH_3OH d. $\text{C}_2\text{H}_5\text{Cl}$
47. Two stroke engines have efficiency than four stroke engines.
 a. always equal b. exactly double c. lesser d. higher
48. In diesel engine ignition is due to
 a. higher compression ratio b. water
 c. spark from spark plug d. dry air
49. In hydropower the energy may be due to.....
 a. temperature b. water current c. color of water d. all of the above
50. In traffic signalscolor is used to indicate not to stop the running vehicles.
 a. Red b. Green c. Black d. Blue
51. For cement OPC stands for
 a. Ordinary Portland Cement b. Other Portland Cement
 c. Other Pozzolana Cement d. Other Particle Cement
52. A concrete of mixture 1:2:4 indicates 1 part cement, 2 partsand 4 parts coarse aggregate.
 a. clay b. water c. brick d. sand
53. Generallyis/are used to construct wall.
 a. steel b. Plastics
 c. coarse aggregate d. brick and stones
54. To get higher capacitance, two capacitors are to be placed incircuit.
 a. series b. parallel c. both a & b d. none of the above
55. Which of the following is not the source of energy?
 a. biomass b. eraser c. sunlight d. nuclear power
56. The instrument used to measure power is
 a. ammeter b. voltmeter c. wattmeter d. watt-hr meter
57. Full form of LED is

- a. light emitting diode
c. light emerging diode
- b. light efficient diode
d. long electric diode
58. Which of the following is/are output device/s?
a. printer
b. monitor
c. projector
d. all of the above
59. Which of the following is/are Operating System/s?
a. Linux
b. Unix
c. Mac OS
d. all of the above
60. Which of the following is not from the field of electronics and computer engineering?
a. Diode
b. Transistor
c. Monitor
d. Cement

Section - II

(40 × 2 = 80)

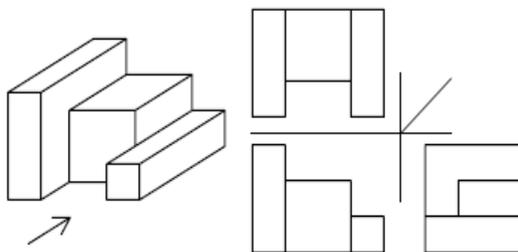
61. If $\arg(z) < 0$ then $\arg(-z) - \arg(z) =$
a. π
b. $-\pi$
c. $-\pi$
d. π
62. In ΔABC , the value of $\sin^2 A + \sin^2 B - \sin^2 C =$
a. 0
b. $2\sin A \sin B \sin C$
c. $3r$
d. 3Δ
63. Sum to n terms of the series $1+(3+5)+(7+9+11)+\dots+n$ terms is
a. n^2
b. $n(n+1)$
c. $n(n+1)(2n+1)$
d. $n(n+1)(2n+1)/6$
64. In a cricket championship there are 36 matches. The number of teams if each plays one match with each other are:
a. 8
b. 9
c. 10
d. 17
65. The tangents to the circle $x^2 + y^2 = 169$ at the points $(5, 12)$ and $(-5, -12)$ are
a. parallel
b. at rt. angles
c. inclined at an angle of 45°
d. inclined at an angle of 60°
66. The tangents at the point $(at_1^2, 2at_1)$ and $(at_2^2, 2at_2)$ on parabola $y^2 = 4ax$ are at rt. angles if
a. $t_1 t_2 + 2 = 0$
b. $t_1 t_2 = 1$
c. $t_1 t_2 - 2 = 0$
d. $t_1 t_2 = -1$
67. The tangents at the point $(at_1^2, 2at_1)$ and $(at_2^2, 2at_2)$ on parabola $y^2 = 4ax$ are at rt. angles if
a. $t_1 t_2 = 1$
b. $t_1 t_2 = -1$
c. $t_1 t_2 = 2$
d. $t_1 t_2 = -2$
68. The curve $y = x^{1/x}$ has at $(0, 0)$
a. a vertical tangent
b. a horizontal tangent
c. no tangent
d. none
69. If the position vector of A is \vec{a} and the position vector of B is \vec{b} and \vec{a} is in the ratio 2:3 then the position vector of B is
a. $\frac{2}{3}\vec{a}$
b. $\frac{3}{2}\vec{a}$
c. $\frac{2}{3}\vec{b}$
d. $\frac{3}{2}\vec{b}$
70. The eccentricity of the hyperbola whose asymptotes are $3x + 4y = 2$ and $4x - 3y = 5$ is
a. 1
b. 2
c. $\frac{5}{4}$
d. $\frac{4}{5}$
71. The value of $\tan^{-1} \left(\frac{\sin x}{1 + \cos x} \right) =$
a. $\frac{x}{2}$
b. x
c. $\frac{x}{4}$
d. $\frac{x}{8}$
72. If $A \subset B$, $n(A) = 37$ and $n(B) = 50$ then $n(A - B)$ and $n(B - A) =$
a. 50, 37
b. 37, 0
c. 13, 0
d. 37, 13
73. A line joining the points $(1, 2, 0)$ and $(4, 13, 5)$ is perpendicular to the plane. Then the coefficient of x, y, z in the equation of the plane are respectively
a. 5, 15, 5
b. 3, 11, 5
c. 3, -11, 5
d. -5, -15, 5
74. The equation $2x^2 - 4xy + 2y^2 + 5x - 7y = 0$ represents.
a. two perpendicular lines
b. two lines inclined at an angle of 45°
c. two intersecting lines
d. two parallel lines
75. Area bounded by the curve $y^2 = x$, $y = 0$, $x = 1$ and $x = 4$ is
a. $\frac{1}{2}$
b. $\frac{1}{3}$
c. $\frac{1}{4}$
d. $\frac{1}{5}$

76. A simple pendulum with a solid metal bob has a period T . The bob is now immersed in a liquid of density that of the bob. Now the period of same pendulum is
 a. T b. T c. T d. T
77. An inclined plane makes an angle of 30° with the horizontal. A solid cylinder rolling down this inclined plane from rest without slipping has a linear acceleration equal to
 a. b. c. d.
78. The weight of a body at a height equal to the radius of earth is w . Its weight at a height equal to three times the radius of earth will be
 a. b. c. d. w
79. A bomb of 12kg at rest explodes into two pieces of masses 4kg and 8kg. The velocity of 8kg mass is 6m/s. The K.E. of 4kg mass is
 a. 24J b. 48J c. 288J d. 384J
80. The temperature of hydrogen at which the rms speed of its molecules is equal to that of oxygen molecules at a temperature of 31°C is
 a. -216°C b. -235°C c. -254°C d. -264°C
81. A uniform rod of length L and mass m hangs freely from a fixed point. The velocity of transverse wave along the rod at a distance x from free end is
 a. b. c. d.
82. When both source and observer approach each other with a velocity equal to the half the velocity of sound the change in frequency of sound as detected by the listener is
 a. 200% b. 25% c. 50% d. 150%
83. A ray of light from vacuum into a medium of refractive index μ , the angle of incidence is found to be twice the angle of refraction. The angle of incidence is
 a. \cos^{-1} b. $2\cos^{-1}$
 c. $2\sin^{-1}(\mu)$ d. $2\sin^{-1}$
84. Proton has a mass of 1840 times that of an electron. If a proton is accelerated from rest by a p.d of 1 volt, its K.E. is
 a. 1840eV b. 1eV c. 1MeV d. zero
85. A capacitance of $4\mu\text{F}$ is charged at 50v and is connected to another capacitor of $2\mu\text{F}$ which is already charged to 100v. The total energy of the combination after connection is
 a. $\times 10^{-2}\text{J}$ b. $\times 10^{-2}\text{J}$
 c. $3 \times 10^{-2}\text{J}$ d. $2.67 \times 10^{-2}\text{J}$
86. A small photocell is placed at a distance of 4m from a photosensitive surface. When light falls on the surface the current is 5mA. If the distance of the cell is decreased to 1m the current will become
 a. 1.25mA b. mA c. 20mA d. 80mA
87. In the hydrogen spectrum λ_3 & λ_2 are the wavelength of radiation emitted due to transition from second & first excited states to the ground state. Then the ratio is
 a. b. c. d.
88. A radioactive element has a half life of 15 years. The fraction that will decay in 30 years is
 a. 0.85 b. 0.75 c. 0.95 d. 0.65
89. In a LCR circuit capacitance is changed from c to $2c$. For the resonant frequency to remain unchanged the inductance should be changed from L to
 a. $4L$ b. $2L$ c. d.
90. If 2% of the main current is to be passed through the galvanometer G . The resistance of the shunt required is
 a. b. c. 49G d. 50G

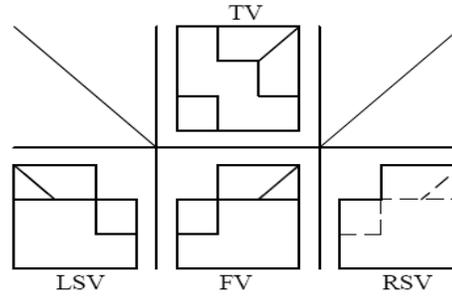
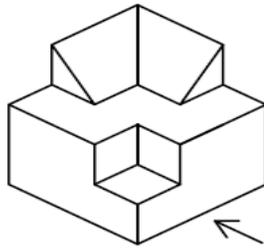
Read the following passage and answer the given questions:

In the past man's worst enemy was nature. He lived under the continual threat of famine and pestilence, a wet summer could bring death to whole nations and every winter was a menace. Mountain stood like a barrier between people and people, a sea was less a highway than an impassable division. Today nature, though still an enemy, is an enemy almost completely conquered. Modern agricultural assures us of an ample food supply. Modern transportation has made the resources of the entire planet accessible to all its inhabitants. Modern medicine and sanitation allow dense populations to cover the ground without risk of pestilence. True, we are still at the mercy of the more violent natural convulsion. Against earthquake, flood and hurricane man has, as yet, devised no adequate protection. But these major cataclysms are rare. At most times, nature is no longer formidable, she has been subdued.

91. Modern medicine has helped man
 a. to live longer everywhere in the world
 b. to live healthy life in hygienic conditions
 c. to live in thickly populated areas without fear of epidemics
 d. balance population with available resources
92. Man has not yet succeeded in controlling the furies of
 a. earthquakes b. floods c. hurricanes d. all of the above
93. In an ancient times, man had an apprehension of
 a. epidemics b. severe droughts c. floods d. all of the above
94. The modern transport system is a blessing as it
 a. has helped decreases the distance between towns and villages
 b. has brought comfort to both towns and villages
 c. has made all the commodities available to everyone
 d. has encouraged people to travel for pleasure
95. 1.235g of metal carbonate on heating gave 0.224R of CO₂ gas at STP. The equivalent weight metal is
 a. 28.64 b. 31.75 c. 32.7 d. 33.25
96. 0.12gm of Mg and 0.28gm of an oxide of metal is treated with 300cc of (f = 1.003) H₂SO₄, solution. To neutralize excess of acid it required 50cc of (f = 1.009)NaOH solution. The eq. wt of metal oxide
 a. 9 b. 12 c. 18 d. 28
97. What volume of 36% HCl having sp.gr. 1.18 is required to prepare 1 litre of a solution having p^H 1
 a. 6.4ml b. 7.5ml c. 8.6ml d. 9.7ml
98. A gas formed by burning Sulphur in air is
 a. oxidant b. reductant c. bleachant d. all of these
99. For the given sets of orthographic projection of the given object, select the wrong view?



- a. Top view b. Side view
 c. Front view d. None of the above
100. The orthographic projection for the given figure is drawn on projection.



a. First angle

b. Second angle

c. Third angle

d. Fourth angle

....Best of Luck....

Answer Options

1. a	2. c	3. b	4. a	5. a	6. d	7. a	8. c	9. b	10 .a
11 .d	12. b	13. a	14. b	15. b	16. b	17. c	18. c	19. b	20 .a
21 .a	22. b	23. a	24. c	25. c	26. d	27. b	28. c	29. b	30 .b
31 .c	32. b	33. c	34. c	35. d	36. a	37. c	38. c	39. d	40 .a
41 .c	42. b	43. c	44. b	45. c	46. b	47. c	48. a	49. b	50 .a
51 .a	52. d	53. d	54. b	55. b	56. c	57. a	58. d	59. d	60 .d
61 .a	62. b	63. d	64. b	65. a	66. d	67. c	68. a	69. b	70 .d
71 .c	72. c	73. b	74. d	75. a	76. c	77. a	78. a	79. c	80 .c
81 .b	82. a	83. b	84. b	85. a	86. d	87. a	88. b	89. c	90 .a
91 .c	92. d	93. d	94. c	95. b	96. d	97. c	98. d	99. b	100. c

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