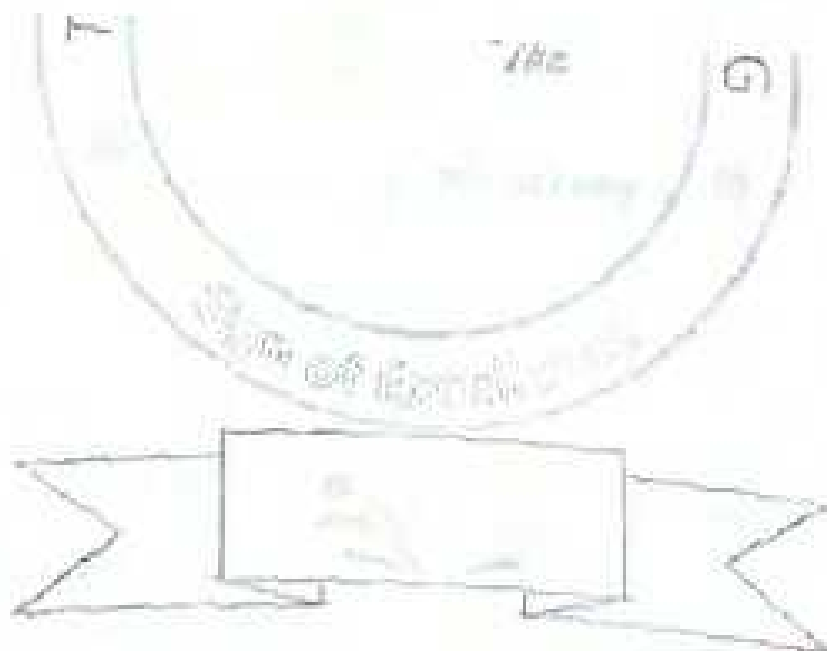# NURSING PRE-ENTRY PREPRATION

NAME: _____

F/NAME: _____

CLASS: _____

#UNDER THE SUPERVISION OF SIR SUNIL, NARWANI

#CONTACT: 0349-3570147

ENGLISH

Choose the word most similar in meaning:

1. ASTONISH:

(a) Punish   (b) control   (c) surprise   (d) please

2. TEPID:

(a) Cold   (b) warm   (c) rival   (d) friend

Choose the word opposite in meaning:

3. LOW:

(a) High   (b) more   (c) fellow   (d) colleague

4. HONEST:

(a) Sincere   (b) open   (c) frank   (d) fraudulent

Choose correct preposition in given sentences.

5. Please obstain _____ smoking.

(a) Of   (b) from   (c) on   (d) in

6. He born _____ June.

(a) in   (b) on   (c) of   (d) at

Identify the word or phrase that needs to be changed for the sentence to be correct:

7. Nadia is cleverer then Ayesha.

(a) is   (b) cleverer   (c) then   (d) no error

8. This is the school that I visit yesterday.

(a) is   (b) that   (c) visit   (d) no error

Read the passage to answer questions 9-10.

Tommy is a happy tiger. He loves to eure fast Tommy lives in the jungle. Tommy has stripes all over his body. Tommy has two little tiger cubs that he looks after.

9. Tommy is the name of:

(a) Cat

(b) dog

(c) tiger

(d) jungle

10. The comparative form word happy is:

(a) Happiest

(b) happier

(c) some happy

(d) no any form

BIOLOGY

11. Branch of biology which deals with the study of chemical processes in the living body is known as:

(a) Biotechnology

(b) biochemistry

(c) Mycology

(d) Anatomy

12. Plant stores their food in _____ form:

(a) amino acid

b) cellulose

(c) starch

(d) chitin

13. A process during which polymers are broken down into their subunits (monomers) by the addition of water is called:

(a) hydrolysis

(b) condensation

(c) dehydration

(d) N.O.T

14. Which statement is correct?

(a) lipids are organic compounds

(b) water behave as best solvent

(c) Buffer maintains PH

(d) all are correct

15. Vitamin K is synthesized in _____ by useful bacteria:

(a) small intestine

(b) large intestine

(c) stomach

(d) N.O.T

16. _____ is a biochemical process during which simple carbohydrates (glucose) are broken down to release energy.

(a) Digestion

(b) respiration

(c) circulation

(d) breathing

17. Which of the following is respiratory disorder?

(a) diarrhea

(b) asthma

(c) headache

(d) all

18. Tuberculosis (T.b) is _____ disease.

(a) viral

(b) fungal

(c) bacterial

(d) N.O.T

19. Small micro-organisms respire without oxygen this process is called _____ respiration:

(a) aerobic

(b) anaerobic

(c) ache

(d) N.O.T

20. Match the terms of column X with the appropriate terms of column Y:

	Column X		Column Y
X_1	Cell wall	Y_1	Tonoplast
X_2	Vacuoles	Y_2	Permeable
X_3	Osmosis	Y_3	Semi-permeable
X_4	Bryophytes	Y_4	Vascular plants

(a) $X_1 Y_2$, $X_2 Y_4$, $X_3 Y_4$, $X_4 Y_3$

(b) $X_1 Y_2$, $X_2 Y_1$, $X_3 Y_4$, $X_4 Y_3$

(c) $X_1 Y_2$, $X_2 Y_1$, $X_3 Y_3$, $X_4 Y_4$

(d) $X_1 Y_4$, $X_2 Y_3$, $X_3 Y_2$, $X_4 Y_3$

21. Which one is mismatched?

a.	BACTERIA	Unicellular	AIDS
b.	PHOTOSYNTHESIS	Plants	$C_6H_{12}O_6$
c.	LEAF	Chlorophyll	Food factories
d.	WATER	Hydrogen bonding	H_2O

22. Mitochondria are also known as:

(a) Power house of cell

(b) plastids

(c) Chondriosomes

(d) a & c right

23. Study of fungi is known as:

(a) phycology

(b) mycology

(c) Biochemistry

(d) N.O.T

24. All fungi are non-chlorophyllus, multicellular except (_____) organisms:

(a) mushroom

(b) yeast

(c) penicillium

(d) all

25. Fungi are _____ hetrotrophs.

(a) ingestive

(b) absorptive

(c) both

(d) N.O.T

26. Fungi are best decomposers along with:

a. bacteria

b. algae

c. virus

d. all

27. Body of fungus is called:

a. parasite

b. mycelium

c. septate

D. N.O.T

28. The body of fungus called mycelium is made up of:

a. cellulose

b. chitin

c. hyphae

d. N.O.T

29. Group of fungi are mutualistic and have symbiotic associations with certain autotrophic either green algae or cynobacterium or sometimes both known as:

a. mycorrhizae

b. lichens

c. bioindicators

d. N.O.T

30. Sexual reproduction present in all fungi except:

a. zygomycota

b. deutromycota

c. basidiomycota

d. ascomycota

31. In bacteria _____ Serve as vector:

a. plasmid

b. cell wall

c. pili

d. capsule

32. In bacteria pili is used for:

a. conjugation

b. locomotion

c. Condensation

d. Detoxification

33. Streptobacillus is _____ of bacilli:

a. cluster

b. chain

c. pair

d. N.O.T

34. In _____ bacteria the tuft of flagella is present only at one pole;

a. atrichous

b. peritrichous

c. lophotrichous

d. monotrichous

35. Amoeba histolytica causes:

a. malaria

b. pyrexia

c. human dysentery

d. constipation

36. Entry of pathogen and appears sign and symptoms of disease is called:

a. time period

b. incubation period

c. bioindicators

d. N.O.T

37. Algae used as:

a. food

b. manure

c. medicine

d. all

38. In Bacteriophage virus the DNA is coiled within the:

a. Tail fibers   b. Head   c. collar   d. N.O.T

39. Match the terms of column A with the appropriate terms of column B:

	Column A		Column B
A_1	AIDS	B_1	Glucose
A_2	Transpiration	B_2	Energy
A_3	Photosynthesis	B_3	HIV
A_4	ATP	B_4	Stomata

a. $A_1 B_2$, $A_2 B_b$ $A_3 B_u$ $A_4 B_t$

a. $A_1 B_2$, $A_2 B_b$ $A_3 B_u$ $A_4 B_t$

a. $A_1 B_2$, $A_3 B_u$ $A_3 B_u$ $A_4 B_2$

d. $A_1 B_1$, $A_2 B_4$ $A_3 B_t$ $A_4 B_3$

40. Platelets help in / function:
a. oxygen supply
b. blood clotting
c. production of ATP
d. N.O.T

PHYSICS

41. 1 joule =
a. 10^7 erg
b. 10^7 erg
c. 10^7 erg
d. 10^{10} erg

42. The SI unit of energy is:
a. newton
b. pascal
c. joule
d. erg

43. Power=
a. W/t
b. W/s
c. Wt
d. N.O.T

44. Watt is a SI unit of:
a. volume
b. pressure
c. temperature
d. power

45. K.E=
a. $\frac{1}{2} mv^2$
b. $\frac{1}{2} mp^2$
c. mgh
d. wt

46. Scalar product of force and displacement is:
a. work
b. energy
c. momentum
d. N.O.T

47. 1 horse power =
a. 373 watts
b. 376 watts
c. 476 Watts
d. 746 watts

48. 1 watt=
a. $\frac{J}{s}$
b. J/s
c. J/s^2
d. N.O.T

49. R_m (radius of moon) is:
a. 3.84×10^5 km
b. 3.84×10^8 m
c. 38.4×10^5 km
d. all

50 "Every body in the universe attracts every other body with a force which is directly proportional to the product of their masses and inversely proportional to the square of distance between them and directed along the line joining their centers statement refers to:

a. law of dimension

b. law of trajectory

r. law of gravitation

d. N.O.T

51. The first value of G (gravitational constant) was determined by:

b. Cavendish

b. poynting & boys

r. both

d. N.O.T

52. Value $G=$

a. $6.673 \times 10^{-11} \, Nm^2/kg^2$

b. $6.673 \times 10^{11} \, Nm^2/kg^2$

c. $6.673 \times 10^{-11} \, Jm^2/kg^2$

d. all

53. The force of gravity on a body varies from place to place on the earth due to:

a. shape of earth

b. rotation of earth

c. both

d. N.O.T

54. The equation of weight due to gravity will be:

a. $W=mg$

b. $W=mg^2$

c. $W=m^2g$

d. N.O.T

55. The value of g at the centre of earth is:

a. maximum

b. minimum

c. zero

d. N.O.T

56. .... is/are good examples of motion in two dimension:

a. Projectile motion

b. circular motion

c. both

d. N.O.T

57. Kicked balls, jumping animals, missile shot from gun, these all are examples of:

a. projectile motion

b. circular motion

c. both

d. N.O.T

58. The path followed by a projectile is called its:

a. dimension

b. trajectory

c. quantity

d. N.O.T

59. .... is/are applications of projectile motion:

a. projectile in athletics

b. horizontal jumping

c. both

d. N.O.T

60. The arc measure of the central angle of an entire circle is:

a. 260 degree

b. 360 degree

c. 460 degree

d. 560 degree

61. 1 radian = _____

a. 26.5 degree

b. 57.3 degree

c. 90 degree

d. 75.7 degree

62. Unit of angular velocity:

a. radian per second

b. radian second

c. radian per meter

d. radian meter

63. When angular velocity changes with respect to time_____ is produced:

a. angular velocity
c. angular acceleration

b. angular displacement
d. N.O.T

64. The time required for one complete revolution or cycle of motion is called:
a. density
c. mass

b. period
d. N.O.T

65. _____ is a vector quantity.
a. work
c. temperature

b. density
d. velocity

66. 1 kg=
a. 10g
c. 100g

b. 100g
d. 1000g

67. 25000 represent _____ significant figures.
a. 2
c. 5

b. 3
d. 0

68. 10^6 shows:
a. mega
c. kilo

b. giga
d. peta

69. The fundamental unit of length in S.I is:
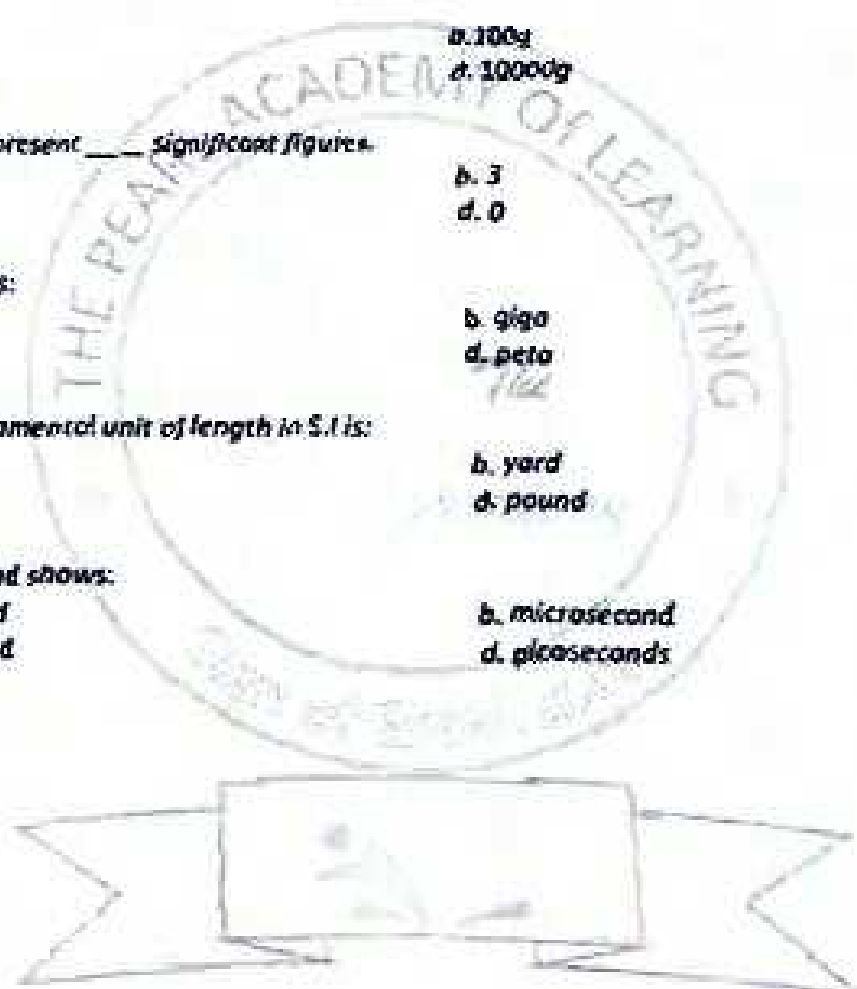a. meter
r. foot

b. yard
d. pound

70. 10^{-9} second shows:
a. millisecond
c. nanosecond

b. microsecond
d. picoseconds

CHEMISTRY

71. 1dm^3=
a. 100 cm^3
c. 10000 cm^3

b. 1000 cm^3
d. 10000 m^3

72. The SI unit of volume is:
a. newton
c. m/s

b. pascal
d. m^3

73. In Charle's ——— is constant:
a. volume
c. temperature

b. pressure
d. all

74. R is general constant value is:
a. 0.0821 dm^3 atm K^{-1} $mole^{-1}$
c. 0.821 dm^3 atm K^{-1} $mole^{-1}$

b. 0.0821 dm^3 atm K.$mole^{-1}$
d. N.O.T

75. "The total pressure of a mixture of gases is the sum of partial of pressure of the gases in the mixture". Statement of:
a. Boyle's law
c. Avogadro's law

b. Dalton's law of partial pressure
d. N.O.T

76. In ——— each carbon atom is joined to three other carbon atoms:
a. Diamond
c. sugar

b. graphite
d. all

77. Compressibility maximum in?
a. solid
c. gas

b. liquid
d. all

78. Cathode rays carry:
a. Positive charge
c. no charge

b. negative charge
d. double positively charge

79. Charge on electron:
a. 6.02×10^{19} C
c. 1.602×10^{-19} C

b. 1.602×10^{19} C
d. N.O.T

80. Mass on electron Me is:
a. 9.11×10^{31} kg
c. 9.11×10^{-41}

b. 9.11×10^{28} g
d. both b & c

81. E=h 'γ' is equation of Max plank's theory where "h" is Plank's constant the value is:
a. 6.65×10^{34} J.S
c. 6.65×10^{-34} J.S

b. 6.65×10^{27} erg.S
d. both b & c

82. Characteristic features of GAS state is/are:
a. free movement of atoms or ions
c. both

b. compressibility
d. rigidity

83. Circumference measure by:
a. πr^2
c. m·v

b. $2\pi r$
d. N.O.T

84. X-RAYS are also known by:
a. Roentgen rays
c. Beta rays

b. Gamma rays
d. N.O.T

85. The minimum amount of energy required to remove the least strongly bound electron from a neutral gaseous atom, ion or molecule is called:

a. Ionization energy
b. Ionization potential
c. both
d. N.O.T

86. In M shell maximum electrons to be filled are:

a. 2
b. 8
c. 18
d. 32

87. The energy required to break a bond between two atoms in a diatomic molecule is known as:

a. Ionization energy
b. kinetic energy
c. bond energy
d. shell energy

88. A complete transference of one or more electron from one atom to other is called:

a. ionic bond
b. covalent bond
c. electrocovalent bond
d. both a & c

89. Alpha rays carry:

a. Positive charge
b. negative charge
c. no charge
d. double positively charge

90. Unit of dipole moment:

a. Coulomb meter
b. meter second
c. coulomb
d. N.O.T

91. The chemical reactions are accompanied by the absorption of energy are called :

a. Exothermic reaction
b. Endothermic reaction
c. both
d. N.O.T

92. Which of the following is/are intensive properties:

a. density
b. volume
c. pressure
d. all

93. "Energy can neither be created nor destroyed, although it may change from one form to another" statement refers to law:

a. 1st law of thermodynamics
b. Law of conservation of energy
c. 2nd law of thermodynamics
d. a & b both

94. 1 calorie=

a. 2.134 J
b. 4.1840 J
c. 3.4578 J
d. 7.467 J

95. Avogadro's number N_A =

a. 9.11×10^{11} / mole
b. 6.02×10^{13} / mole
c. 5.06×10^{11} / mole
d. N.O.T

96. A chemical reaction in which electrons are lost by an atom or groups of atoms is called:

a. oxidation
b. reduction
c. both
d. N.O.T

97. In acid litmus paper color change into:

Name: **Date:**

Chapter No:1.   **Introduction of Biology**

MCQS Test.

1. **Parasitic organisms are studied the disciplines of:**
    A. Microbiology
    B. Parasitology
    C. Mycology
    D. Phycology

2. **.......... is the introduction of harmful materials into the environment.**
    A. Pollination
    B. Pollution
    C. Protection
    D. Conservation

3. **............ unbroken series of species, progressing from ancestor to descendent, with each group evolving from one immediately preceding it.**
    A. Phyletic lineage
    B. Fossils
    C. Evolution
    D. Not

4. **Blood is.........**
    A. Tissue
    B. Organ
    C. Molecule
    D. Cell

5. **Chemical formula of Glucose:**
    A. $C_6H_{12}O_6$
    B. $C_6H_{10}O_6$
    C. $C_6H_{12}O_5$
    D. $C_6H_{12}O_4$

6. **A group of similar cells that perform a specific function is called.........**
    A. Tissue
    B. Organ
    C. Autotrophic
    D. Organelle

7. **.......... also known as antibacterial, are medications that destroy or slow down the growth of bacteria.**
    A. Vaccine
    B. Antibiotics
    C. Antigens
    D. Not

8. **Multicellular are/is:**
    A. Plants
    B. Animals
    C. Virus
    D. Both a & b

CHEMISTRY

Name: Date:

Grand Test

MCQS Test.

1. 0.0667 have significant figures:

a. 5   b. 4   c. 3   d. 2

2. $1 dm^3 =$

a. $100 cm^3$ b. $1000 cm^3$ c. $10000 cm^3$ d. $10000 m^3$

3. The SI unit of volume is:

a. newton   b. pascal   c. m/s   d. m^3

4. Chemical formula of benzene:

a. C_6H_6 b. CH_4 c. CHO   d. CH_3

5. In Charle's .... is constant:

a. volume   b. pressure   c. temperature   d. all

6. R is general constant value is:

a. $0.0821 dm^3 atm K^{-1} mole^{-1}$ b. $0.0821 dm^3 atm K mole^{-1}$ c. $0.821 dm^3 atm K^{-1} mole^{-1}$ d. not

7. "The total pressure of a mixture of gases is the sum of partial of pressure of the gases in the mixture". Statement of:

a. Boyles's law   b. Dalton's law of partial pressure   c. Avogadro's law   d. not

8. In .... each carbon atom is joined to three other carbon atoms:

a. Diamond   b. graphite   c. sugar   d. all

9. Electron discovered by:

a. Dalton   b. J.J Thomson   c. Chadwick   d. Max plank

10. Compressibility maximum in?

a. solid   b. liquid   c. gas   d. all

11. Cathode rays carry:

a. Positive charge   b. negative charge   c. no charge   d. double positively charge

12. Charge on electron:

a. $6.02 \times 10^{19} C$ b. $1.602 \times 10^{19} C$ c. $1.602 \times 10^{19} C$ d. not

13. Mass on electron Me is:

a. $9.11 \times 10^{31} kg$ b. $9.11 \times 10^{28} g$ c. 9.11×10^{31} d. both b & c

14. $E = h\gamma$ is equation of Max plank's theory where "h" is Plank's constant the value is:

a. $6.65 \times 10^{34} J.S$ b. $6.65 \times 10^{27} erg.S$ c. $6.65 \times 10^{34} J.S$ d. both b & c

15. Characteristic features of GAS state is/are:

a. free movement of atoms or ions   b. compressibility   c. both   d. rigidity

16. Circumference measure by:
a. πr^2 b. $2\pi r$ c. $m \times v$ d. not

17. X-RAYS are also known by:
a. Roentgen rays   b. Gamma rays   c. Beta rays   d. not

18. The atomic number 'Z' of an atom is equal to the number of in the nucleus.
a. proton   b. neutron   c. both   d. not

19. Formula of table salt is:
a. C_6H_6 b. CH_4 c. CHO   d. NaCl

20. Most electronegative element in periodic table is fluorine its electronegativity:
a. 2   b. 4   c. 6   d. 8

21. The minimum amount of energy required to remove the least strongly bound electron from a neutral gaseous atom, ion or molecule is called;
a. Ionization energy   b. Ionization potential   c. both   d. not

22. The distance between two carbon atoms is:
a. 1.92 A'   b. 1.54 A'   c. 108 A'   d. not

23. In M shell maximum electrons to be filled is:
a. 2   b. 8   c. 18   d. 32

24. The energy required to break a bond between two atoms in a diatomic molecule is known as:
a. Ionization energy   b. kinetic energy   c. bond energy   d. shell energy

25. A complete transference of one or more electron from one atom to other is called:
a. ionic bond   b. covalent bond   c. electrocovalent bond   d. both a & c

26. Alpha rays carry:
a. Positive charge   b. negative charge   c. no charge   d. double positively charge

27. Unit of dipole moment:
a. Coulomb meter   b. meter second   c. coulomb   d. not

28. The chemical reactions are accompanied by the absorption of energy are called :
a. Exothermic reaction   b. Endothermic reaction   c. both   d. not

29. Which of the following is/are intensive properties:
a. density   b. volume   c. pressure   d. all

30. " Energy can neither be created nor destroyed, although it may change from one form to another" statement refers to law:
a. 1st law of thermodynamics   b. Law of conservation of energy
c. 2nd law of thermodynamics   d. a & b both

31. 1 calorie=
a. 2.134 J   b. 4.1840 J   c. 3.4578 J   d. 7.467 J

32. Absolute zero 0K=

a. 273 °C   b. 373 °C   c. -373 °C   d. -273 °C

33. The SI unit of HEAT is:

a. newton   b. pascal   c. m/s   d. joule

34. Avogadro's number N_A =

a. 9.11×10^{31} / mole   b. 6.02×10^{23} / mole   c. 5.06×10^{-31} / mole   d. not

35. 10^{-2} is:

a. peta   b. deci   c. centi   d. mili

36. A chemical reaction in which electrons are lost by an atom or groups of atoms is called:

a. oxidation   b. reduction   c. both   d. not

37. In acid litmus paper color change into:

a. blue   b. red   c. green   d. remains same

38. .... Discovered series in ultraviolet region:

a. Lyman   b. Paschen   c. Balmer   d. all

39. Neutron discovered by:

a. Dalton   b. J.J Thomson   c. Chadwick   d. Max plank

40. Fat soluble vitamins mainly stored in:

a. liver   b. skin   c. stomach   d. cannot be stored

41. The most reactive state of H_2 is:

a. atomic hydrogen   b. molecular hydrogen   c. hydrogen in compound   d. not

42. The basic structure of crystalline substances is called:

a. unit cell   b. lattice   c. matrix   d. not

43. A solution which tends to resist changes in PH is called:

a. Buffer   b. salt   c. methane   d. both b & c

44. PH of water:

a. 3.4   b. 6.6   c. 7   d. 8

45. Chemical formula of barium sulphate:

a. PbS   b. $BaSO_4$ c. $CaCO_3$ d. NOT

46. Which of the following have bond angle 109'.28' and SP^3 hybridization.

a. CH_4 b. CCl_4 c. CBr_4 d. all

47. Symbol of noble gas Helium:

a. HI_2 b. He   c. NO_2 d. not

48. Symbol of Gold:

a. Cu   b. Au   c. Na   d. not

49. The atomic number of hydrogen is:

a. 1   b. 2   c. 3   d. 4

50. The electronegativity down the group:
a. increase   b. decrease   c. same   d. not

51. Air contains nitrogen:
a. 90%   b. 21%   c. 79%   d. not

52. Chemical formula of urea is:
a. $(NH_2)_2CO$ b. $NH-CO-NH$ c. KNO_3 d. not

53. Which of the following man-made fiber:
a. Nylon   b. rubber   c. rayon   d. plastics

54. Biological catalyst is:
a. enzymes   b. fat   c. aminoacid   d. all

55. Deficiency of vitamin B_1 leads to a disease called:
a. night blindness   b. beri-beri   c. rickets   d. scurvy

56. During digestion protein broken down in:
a. amino-acid   b. fat   c. glucose   d. not

57. Number of isomers of glucose are found about:
a. 10   b. 16   c. 32   d. not

58: Hormones made up of:
a. fats   b. lipids   c. proteins   d. sugar

59. Phenol is also called:
a. methane   b. carbolic acid   c. acetic acid   d. benzoic acid

60. The general representation of carboxylic acid is:
a. R-COOR   b. COOH   c. R-COOH   d. R-OH

61. It is chemical formula of CH_3COOH:
a. Formic acid   b. acetic acid   c. butyric acid   d. valeric acid

62. Chemical formula of phenol is:
a. OH   b. COOH   c. C_6H_5OH d. R-OH

63. Chemical formula of Alcohol (ethanol):
a. C_6H_5OH b. COOH   c. C_2H_5OH d. OH

64. Hydrocarbons which contains triple bond called:
a. alkane   b. alkene   c. alkyne   d. not

65. Methane is also known as:
a. marsh gas   b. oil gas   c. coal gas   d. all

66. Shape of benzene ring is:
a. spherical   b. round   c. tetrahedral   d. hexagonal

67. The fist known organic compound synthesized in laboratory is:
a. salt   b. urea   c. uric acid   d. ethane

68. Alkanes have general formula:
a. C_nH_{2n} b. C_nH_{2n-2} c. C_nH_{2n+2} d. not

69. Which of the following is a transition element:
a. Sr   b. He   c. Cr   d. Sn

70. $CuSO_4.5H_2O$ chemical formula of:
a. lunar caustic   b. silver nitrate   c. blue vitrol   d. gypsum

71. $Na_3 AlF_6$ is formula of:
a. croylite   b. alum   c. bauxite   d. not

72. Good conductor of heat and electricity is:
a. diamond   b. coal   d. graphite   d. not

73. $MgSO_4.7H_2O$ is chemical formula of:
a. Epsom salt   b. gypsum   c. sandhur   d. not

74. Hydrogen was discovered by;
a. Cavendish   b. Lavoisier   c. Newton   d. Goldstein

75. Hydrogen has .... isotopes:
a. 2   b. 3   c. 4   d. 5

76. The elements having atomic number greater than 82 are called ....elements:
a. alkali   b. radioactive   c. noble gases   d. not

77. Halogen family found in .... group.
a. 1ST A   B. 2ND A   C. 7TH A   D. NOT

78. Symbol of mercury is:
a. Na   b. Hg   c. He   d. CO

79. Formula of heavy water is;
a. DO_2 B. D_2O C. H_2O_2 d. not

80. Oxygen discovered by:
a. Cavendish   b. Lavoisier   c. Priestly   d. Goldstein

81. Law of octaves was given by:
a. Moselay   b. Cavendish   c. newland   d. Mendeleev

82. Sodium hydroxide (NaOH) is also called:
a. caustic soda   b. baking soda   c. common salt   d. soda ash

83. $CaOCl_2$ is chemical formula of:
a. bleaching powder   b. sandhur   c. laughing gas   d. not

84. In Duralumin composition the aluminium percentage is:
a. 95%   b. 50%   c. 4%   d. not found

85. Chemical formula of nitric acid;
a. H_2O_2 b. HNO_3 c. HCL   d. not

86. In butane number of carbon is:
a. 2   b. 4   c. 6   d. 8

87. Vitamin C found in:
a. wheat   b. apple   c. lemon   d. onion

88. Excess or deficiency of al nutrition in the body is called:
a. nutrition   b. under nutrition   c. mal nutrition   d. digestion

89. Chemical formula of lime stone is :
a. CaO   b. HNO_3 c. HCL   d. not

90. The empirical formula of benzene is:
a. CHO   B. CH   c. OH   d. CHN

91. Loss of electron is called:
a. reduction   b. oxidation   c. metal   d. not

92. Symbol of silver is:
a. Au   b. Ag   c. Na   d. Ra

93. Brass an alloy of:
a. Cu & Zn   b. Cu, Ni & Zn   c. Cu & Ni   d. Cu, Al & Zn

94. PVC stands for:
a. photo vinyl chloride   b. poly vinyl chloride   c. puyveric chloride   d. not

95. Valency of carbon atom is:
a. 4   b. 8   c. 12   d. 16

96. Gain of electron form:
a. anion   b. cation   c. both   d. not

97. Same atomic number and different in mass number is called:
a. isotopes   b. isotones   c. isobars   d. not

98. Which of the following has highest wavelength:
a. blue   c. red   c. violet   d. green

100. Nucleus was discovered by:
a. Rutherford   b. Cavendish   c. Thomson   d. Mendeleev

CHEMISTRY GRAND/TEST KEY.

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

Name: Date:

The Three States of Matter

MCQS Test.

1. Uncommon state of matter:
a. solid   b. liquid   c. gas   d. plasma

2. 1dm^3=
a. 100 cm^3 b. 1000 cm^3 c. 10000 cm^3 d. 10000 m^3

3. The SI unit of pressure is:
a. newton   b. pascal   c. m/s   d. not

4. 1 atm:
a. 760 torr   b. 860 torr   c. 960 torr   d. not

5. In Boyle's law .... is constant:
a. volume   b. pressure   c. temperature   d. all

6. $P_1 V_1 = P_2 V_2$ is mathematical expression of:
a. Boyles's law   b. Charles's law   c. Avogadro's law   d. not

7. $PV = nRT$ is mathematical equation:
a. Boyles's law   b. Charles's law   c. Avogadro's law   d. Ideal gas equation

8. In .... each carbon atom is joined to four other carbon atoms:
a. Diamond   b. graphite   c. sugar   d. all

9. A substance under different conditions can form more than one type of crystal this phenomenon known as:
a. isomorphism   b. polymorphism   c. cleavage   d. NOT

10. Compressibility in ...... is zero.
a. solid   b. liquid   c. gas   d. all

11. A process in which solids directly convert into vapour on heating without passing through liquid phase ;
a. Combustion   b. sublimation   c. hydrolysis   d. not

12. The breaking of a big crystal into smaller crystals of identical shape is called:
a. Cleavage   b. cleavage planes   c. lysis   d. not

13. SI Unit of viscosity:
a. Poise   b. N.s.m^{-2} c. torr   d. not

14. Which of the following is amorphous solid :
a. Glass   b. rubber   c. plastic   d. all

15. One of characteristic features of solid state is:
a. free movement of atoms or ions   b. compressibility   c. ability to expand   d. rigidity

CHEMISTRY

Name: **Date:**

Grand Test

MCQS Test.

1. 0.0667 have significant figures:

a. 5   b. 4   c. 3   d. 2

2. $1 dm^3 =$

a. $100\ cm^3$ b. $1000\ cm^3$ c. $10000\ cm^3$ d. $10000\ m^3$

3. The SI unit of volume is:

a. newton   b. pascal   c. m/s   d. m^3

4. Chemical formula of benzene:

a. C_6H_6 b. CH_4 c. CHO   d. CH_3

5. In Charle's .... is constant:

a. volume   b. pressure   c. temperature   d. all

6. R is general constant value is:

a. $0.0821\ dm^3\ atm\ K^{-1}\ mole^{-1}$ b. $0.0821\ dm^3\ atm\ K\ mole^{-1}$ c. $0.821\ dm^3\ atm\ K^{-1}\ mole^{-1}$ d. not

7. "The total pressure of a mixture of gases is the sum of partial of pressure of the gases in the mixture". Statement of:

a. Boyles's law   b. Dalton's law of partial pressure   c. Avogadro's law   d. not

8. In .... each carbon atom is joined to three other carbon atoms:

a. Diamond   b. graphite   c. sugar   d. all

9. Electron discovered by:

a. Dalton   b. J.J Thomson   c. Chadwick   d. Max plank

10. Compressibility maximum in?

a. solid   b. liquid   c. gas   d. all

11. Cathode rays carry:

a. Positive charge   b. negative charge   c. no charge   d. double positively charge

12. Charge on electron:

a. $6.02 \times 10^{19} C$ b. $1.602 \times 10^{19} C$ c. $1.602 \times 10^{-19} C$ d. not

13. Mass on electron Me is:

a. $9.11 \times 10^{31}\ kg$ b. $9.11 \times 10^{28} g$ c. 9.11×10^{31} d. both b & c

14. $E = h\gamma$ is equation of Max plank's theory where "h" is Plank's constant the value is:

a. $6.65 \times 10^{34}\ J.S$ b. $6.65 \times 10^{-27} erg.S$ c. $6.65 \times 10^{-34}\ J.S$ d. both b & c

15. Characteristic features of GAS state is/are:

a. free movement of atoms or ions   b. compressibility   c. both   d. rigidity

16. Circumference measure by:
a. πr^2 b. $2\pi r$ c. m×v   d. not

17. X-RAYS are also known by:
a. Roentgen rays   b. Gamma rays   c. Beta rays   d. not

18. The atomic number 'Z' of an atom is equal to the number of in the nucleus.
a. proton   b. neutron   c. both   d. not

19. Formula of table salt is:
a. C_6H_6 b. CH_4 c. CHO   d. NaCl

20. Most electronegative element in periodic table is fluorine its electronegativity:
a. 2   b. 4   c. 6   d. 8

21. The minimum amount of energy required to remove the least strongly bound electron from a neutral gaseous atom, ion or molecule is called;
a. Ionization energy   b. Ionization potential   c. both   d. not

22. The distance between two carbon atoms is:
a. 1.92 A'   b. 1.54 A'   c. 108 A'   d. not

23. In M shell maximum electrons to be filled is:
a. 2   b. 8   c. 18   d. 32

24. The energy required to break a bond between two atoms in a diatomic molecule is known as:
a. Ionization energy   b. kinetic energy   c. bond energy   d. shell energy

25. A complete transference of one or more electron from one atom to other is called:
a. ionic bond   b. covalent bond   c. electrocovalent bond   d. both a & c

26. Alpha rays carry:
a. Positive charge   b. negative charge   c. no charge   d. double positively charge

27. Unit of dipole moment:
a. Coulomb meter   b. meter second   c. coulomb   d. not

28. The chemical reactions are accompanied by the absorption of energy are called :
a. Exothermic reaction   b. Endothermic reaction   c. both   d. not

29. Which of the following is/are intensive properties:
a. density   b. volume   c. pressure   d. all

30. " Energy can neither be created nor destroyed, although it may change from one form to another" statement refers to law:
a. 1st law of thermodynamics   b. Law of conservation of energy
c. 2nd law of thermodynamics   d. a & b both

31. 1 calorie=
a. 2.134 J   b. 4.1840 J   c. 3.4578 J   d. 7.467 J

67. The fist known organic compound synthesized in laboratory is:
a. salt   b. urea   c. uric acid   d. ethane

68. Alkanes have general formula:
a. C_nH_{2n} b. C_nH_{2n-2} c. C_nH_{2n+2} d. not

69. Which of the following is a transition element:
a. Sr   b. He   c. Cr   d. Sn

70. $CuSO_4.5H_2O$ chemical formula of:
a. lunar caustic   b. silver nitrate   c. blue vitrol   d. gypsum

71. $Na_3 AlF_6$ is formula of:
a. croylite   b. alum   c. bauxite   d. not

72. Good conductor of heat and electricity is:
a. diamond   b. coal   d. graphite   d. not

73. $MgSO_4.7H_2O$ is chemical formula of:
a. Epsom salt   b. gypsum   c. sandhur   d. not

74. Hydrogen was discovered by;
a. Cavendish   b. Lavoisier   c. Newton   d. Goldstein

75. Hydrogen has .... isotopes:
a. 2   b. 3   c. 4   d. 5

76. The elements having atomic number greater than 82 are called ....elements:
a. alkali   b. radioactive   c. noble gases   d. not

77. Halogen family found in .... group.
a. 1ST A   B. 2ND A   C. 7TH A   D. NOT

78. Symbol of mercury is:
a. Na   b. Hg   c. He   d. CO

79. Formula of heavy water is;
a. DO_2 B. D_2O C. H_2O_2 d. not

80. Oxygen discovered by:
a. Cavendish   b. Lavoisier   c. Priestly   d. Goldstein

81. Law of octaves was given by:
a. Moselay   b. Cavendish   c. newland   d. Mendeleev

82. Sodium hydroxide (NaOH) is also called:
a. caustic soda   b. baking soda   c. common salt   d. soda ash

83. $CaOCl_2$ is chemical formula of:
a. bleaching powder   b. sandhur   c. laughing gas   d. not

50. The electronegativity down the group:
a. increase   b. decrease   c. same   d. not

51. Air contains nitrogen:
a. 90%   b. 21%   c. 79%   d. not

52. Chemical formula of urea is:
a. $(NH_2)_2CO$ b. NH-CO-NH   c. KNO_3 d. not

53. Which of the following man-made fiber:
a. Nylon   b. rubber   c. rayon   d. plastics

54. Biological catalyst is:
a. enzymes   b. fat   c. aminoacid   d. all

55. Deficiency of vitamin B_1 leads to a disease called:
a. night blindness   b. beri-beri   c. rickets   d. scurvy

56. During digestion protein broken down in:
a. amino-acid   b. fat   c. glucose   d. not

57. Number of isomers of glucose are found about:
a. 10   b. 16   c. 32   d. not

58: Hormones made up of:
a. fats   b. lipids   c. proteins   d. sugar

59. Phenol is also called:
a. methane   b. carbolic acid   c. acetic acid   d. benzoic acid

60. The general representation of carboxylic acid is:
a. R-COOR   b. COOH   c. R-COOH   d. R-OH

61. It is chemical formula of CH_3COOH:
a. Formic acid   b. acetic acid   c. butyric acid   d. valeric acid

62. Chemical formula of phenol is:
a. OH   b. COOH   c. C_6H_5OH d. R-OH

63. Chemical formula of Alcohol (ethanol):
a. C_6H_5OH b. COOH   c. C_2H_5OH d. OH

64. Hydrocarbons which contains triple bond called:
a. alkane   b. alkene   c. alkyne   d. not

65. Methane is also known as:
a. marsh gas   b. oil gas   c. coal gas   d. all

66. Shape of benzene ring is:
a. spherical   b. round   c. tetrahedral   d. hexagonal

32. Absolute zero OK=

a. 273 'C   b. 373 'C   c. -373 'C   d. -273 'C

33. The SI unit of HEAT is:

a. newton   b. pascal   c. m/s   d. joule

34. Avogadro's number $N_A =$

a. 9.11×10^{31} / mole   b. 6.02×10^{23} / mole   c. 5.06×10^{31} / mole   d. not

35. 10^{-2} is:

a. peta   b. deci   c. centi   d. mili

36. A chemical reaction in which electrons are lost by an atom or groups of atoms is called:

a. oxidation   b. reduction   c. both   d. not

37. In acid litmus paper color change into:

a. blue   b. red   c. green   d. remains same

38. .... Discovered series in ultraviolet region:

a. Lyman   b. Paschen   c. Balmer   d. all

39. Neutron discovered by:

a. Dalton   b. J.J Thomson   c. Chadwick   d. Max plank

40. Fat soluble vitamins mainly stored in:

a. liver   b. skin   c. stomach   d. cannot be stored

41. The most reactive state of H_2 is:

a. atomic hydrogen   b. molecular hydrogen   c. hydrogen in compound   d. not

42. The basic structure of crystalline substances is called:

a. unit cell   b. lattice   c. matrix   d. not

43. A solution which tends to resist changes in PH is called:

a. Buffer   b. salt   c. methane   d. both b & c

44. PH of water:

a. 3.4   b. 6.6   c. 7   d. 8

45. Chemical formula of barium sulphate:

a. PbS   b. $BaSO_4$ c. $CaCO_3$ d. NOT

46. Which of the following have bond angle 109'.28' and SP^3 hybridization.

a. CH_4 b. CCl_4 c. CBr_4 d. all

47. Symbol of noble gas Helium:

a. HI_2 b. He   c. NO_2 d. not

48. Symbol of Gold:

a. Cu   b. Au   c. Na   d. not

49. The atomic number of hydrogen is:

a. 1   b. 2   c. 3   d. 4

84. In Duralumin composition the aluminium percentage is:

a. 95% b. 50% c. 4% d. not found

85. Chemical formula of nitric acid;

a. H_2O_2 b. HNO_3 c. HCL d. not

86. In butane number of carbon is:

a. 2 b. 4 c. 6 d. 8

87. Vitamin C found in:

a. wheat b. apple c. lemon d. onion

88. Excess or deficiency of al nutrition in the body is called:

a. nutrition b. under nutrition c. mal nutrition d. digestion

89. Chemical formula of lime stone is :

a. CaO b. HNO_3 c. HCL d. not

90. The empirical formula of benzene is:

a. CHO B. CH c. OH d. CHN

91. Loss of electron is called:

a. reduction b. oxidation c. metal d. not

92. Symbol of silver is:

a. Au b. Ag c. Na d. Ra

93. Brass an alloy of:

a. Cu & Zn b. Cu, Ni & Zn c. Cu & Ni d. Cu, Al & Zn

94. PVC stands for:

a. photo vinyl chloride b. poly vinyl chloride c. puyveric chloride d. not

95. Valency of carbon atom is:

a. 4 b. 8 c. 12 d. 16

96. Gain of electron form:

a. anion b. cation c. both d. not

97. Same atomic number and different in mass number is called:

a. isotopes b. isotones c. isobars d. not

98. Which of the following has highest wavelength:

a. blue c. red c. violet d. green

100. Nucleus was discovered by:

a. Rutherford b. Cavendish c. Thomson d. Mendeleev

CHEMISTRY GRAND/TEST KEY.

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

Name: Date:

Introduction to Fundamental
Concepts of chemistry

MCQS Test.

1. **Which of these branches of chemistry deals with the study of compounds of living organisms?**

   A. Organic chemistry   B. Analytical chemistry

   C. Environmental chemistry   D. Biochemistry

2. **Which one of these scientists is known as father of chemistry?**

   A. Jabir-bin Haiyan   C. Bu ali sina

   B. Al-beruni   D. Aristotle

3. **Significant figure of 9000 is**

   A. 1   C. 2

   B. 3   D. None of these

4. **Significant figure of 12.00 is**

   A. 1   C. 4

   B. 2   D. None of these

5. **Significant figure of 9.11×10^{31} is**

   A. 1   C. 3

   B. 5   D. None of these

6. **What is the significant figure of 4001?**

   A. 3   C. 2

   B. 4   D. 5

7. **The significant figure of 6.02×10^{23} is**

   A. 1   B. 3

   C. 4   D. 2

8. **An atom is known as**

   A. Smallest particle which is known.

   B. Smallest particle of an element in gaseous state

   C. Smallest indivisible particle   D. None of these

9. **25700 written in exponential notation as**

A. 2.57×10^{-2}

C. 25.7×10^2

B. 2.57×10^2

D. 25.7×10^{-1}

10. **0.00258 written exponential notation as**

    A. 2.58×10^{-3}

C. 2.58×10^{-2}

    B. 2.58×10^3

D. 2.58×10^2

11. **Symbol of potassium:**

    A. Be

C. Ca

    B. K

D. Fr

12. **Hydrogen is......**

A. Monoatomic

C. Diatomic

B. Solid

D. Not

13. **Atomic number of carbons:**

A. 6

C. 12

B. 18

D. 32

14. **Carbon is......**

A. Monovalent

C. Trivalent

B. Bivalent

D. Tetravalent

15. **Helium is a ......**

A. Metal

C. Liquid

B. Gas

D. Solid

16. **Symbol of sodium**

A. Na

B. K

B. S

D. O

17. **Proton in atom found in**

A. Shell

B. Nucleus

B. Element

D. Not

Name: **Date:**

The cell

MCQS Test.

1. **Which statement is incorrect:**
   A. All organisms are composed of one or more cells. C. Cell is basic unit of life
   B. Cell is structural and functional unit of life D. All are correct

2. **Which of the following is not the function of cell membrane?**
   A. Protection of cytoplasm   C. Regulating the passage of different molecules
   B. Protein synthesis   D. Cellular transportation

3. **Emergence of cell theory is proposed by:**
   A. Robert Brown   B. Schwan   C. Schleiden   D. Both b & c

4. **The word karyon means**
   A. Cytoplasm   B. Cell   C. Nucleus   D. Not

5. **Magnification is a means of .... apparent size of the object.**
   A. Decreasing   B. Increasing   C. Contrast   D. No

6. **Cyanobacteria's are ......**
   A. Unicellular   B. Prokaryotes   C. Eukaryotes   D. A & B

7. **Which of the following statements are not true regarding cell wall?**
   A. Plant cell wall is made up of cellulose   C. Plant cell wall is a non-living structure
   B. Cell wall provides mechanical support to the cell   D. Cell was is semi-permeable

8. **Study of nucleus is called**
   A. Morphology   B. Cytokinesis   C. Karyology   D. Not

9. **Plant cell wall is made up of**
   A. Cellulose, hemicelluloses, and pectin   C. Cellulose and chitin
   B. Cellulose, hemicelluloses, and chitin   D. Cellulose only

10. **Fine cytoplasmic connections between neighbouring cells through the cell wall for cell to cell communication is called**
    A. Plasmosome   B. Plasmodesmata   C. Mesosome   D. All of these

11. **Secondary cell wall of plants is:**
    A. Located outside the primary wall   C. Located inside the plasma membrane
    B. Located inside the primary wall   D. Located just beneath middle lamellae

12. **Nucleus discovered by**
    A. Robert hook   B. Robert brown   C. William   D. None

13. **Animals which consist of only one cell is called..........**
    A. Unicellular   B. Multicellular   C. Acellular   D. None of these

14. **Resolution is the capacity to:**
    A. Combine B. Reinforce   C. Separate   D. Dispense

15. **Magnification is a means of:**
    A. Decreasing   B. Increasing   C. Doubling   D. Halving

16. **The electron microscope invented in**
    A. 1635   B. 1735   C. 1835   D. 1935

17. **The electron microscope uses a beam of:**
    A. Electron B. Proton   C. Neutron   D. Positron

18. **What is the structural and functional unit of all living organisms?**
    A. Nucleus   B. Cytoplasm   C. Cell   D. Ribosome

19. **Cell wall is largely made up of:**
    A. Carbohydrates   B. Starch   C. Cellulose   D. Pectin

20. **Cell wall is:**
    A. Permeable B. Semipermeable   C. Impermeable   D. All of them

21. **Cell membrane is:**
    A. Permeable B. Semipermeable   C. Impermeable   D. All of them

22. **Nucleus is filled with a gel like substance called:**
    A. Cytoplasm B. Chloroplast   C. Centro plasm   D. Nucleoplasm

23. **Chromosomes are present inside nucleus; they are composed of DNA and:**
    A. Carbohydrates   B. Proteins   C. Lipids   D. minerals

24. **The number of chromosomes for a particular species is:**
    A. Fixed   B. Not Fixed   C. Changeable   D. Varying

25. **There are how many types of endoplasmic reticulum?**
    A. Two   B. Three   C. Four   D. Five

26. **Golgi Complex is mainly concerned with cell:**
    A. Metabolism   B. Secretion   C. Function   D. Distribution

27. **Mitochondria are concerned with:**
    A. Excretion B. Respiration   C. Digestion   D. Reproduction

28. **Plastids are of how many types.**
    A. Two   B. Three   C. Four   D. Five

29. How many centrioles from a centrosome, which is present only in animal cells?
   A. Two   B. Three   C. Four   D. Five

30. Ribosomes make:
   A. Carbohydrates   B. Proteins   C. Lipids   D. Vitamins

31. The membrane surrounding the large central vacuole of plant is called:
   A. Chloroplast   B. leucoplast   C. Chromoplast   D. Tonoplast

32. Prokaryotic cells do not have membrane bound:
   A. Organs   B Organelles   C. Cells   D. Tissue

33. Study of cell is called:
   A. Cytology   B. Homology   C. Virology   D. opt homology

34. Microtubules and microfilaments are the types of:
   A. Cytoskeleton   B. Lysosomes   C. Peroxisome   D. Glyoxysome

35. Cell wall is not found in:
   A. Plant cell   B. Animal Cell   C. Bacterial Cell   D. Fungal Cell

36. Secondary wall is present on the inner side of:
   A. Primary wall   B. Middle lamella   C. Cell Membrane   D. Nucleus

37. Cell membrane is found:
   A. Only in plant cell   B. Only in animal Cell   C. Only in Bacterial cell   D. In all types of cell

38. The process of talking fluid in large amount by cell membrane is called:
   A. Osmosis   B. Diffusion   C. Phagocytosis   D. Active transport

39. The process of movement of molecules from lower to higher concentration is called:
   A. Diffusion   B. Osmosis   C. Active transport   D. passive Transport

40. Ribosomes take part in
   A. Secretion of enzymes   C. Production of energy
   B. Protein synthesis   D. Carbohydrates formation

41. Mitochondria take part in
   A. Energy production   B. Protein Synthesis   C. Storage of Cellulose   D. None

42. Mitochondria and ribosomes are present in:
   A. In plant cell only   C. In plant and animal cell
   B. In animal cell   D. In plant animal, bacterial cell

43. White plastid is called
   A. Chromoplasts   B. Chloroplast   C. Leucoplast   D. Cytoplasts

44. The function of leucoplasts is:
   A. Enzyme secretion   B. Attraction of insects   C. Both A and B   D. Storage of food

45. Germ plastid in plants are called:
   A. Leucoplasts   B. Chloroplasts   C. Chromoplasts   D. Cytoplasts

46. The plastid which contain different colours in plants are called:
   A. Leucoplasts   B. Chloroplasts   C. Chromoplasts   D. Cytoplasts

47. The layer of cell wall present between two cells is called:
   A. Primary wall   B. Secondary wall   C. Middle lamella   D. none of them

48. The vitamin which help to maintain strong and healthy bones is called:
   A. Vitamin A   B. Vitamin B   C. Vitamin C   D. Vitamin D

49. Mitochondria are passed to an individual only by:
   A. Mother   B. Father   C. Sperm   D. Ovule

50. The membrane surrounded the vacuole is known as:
   A. Tonoplast   B. Leucoplast   C. chromoplast   D. Chloroplast

51. Cell membrane is composed of:
   A. Protein and lipids   C. Lipids and Carbohydrates
   B. Protein and carbohydrates   D. None

52. Chromosomes are produced in the
   A. Nucleolus   B. Nucleus   C. Cytoplasm   D. Mitochondria

53. Fluid mosaic bilayer model of cell membrane was proposed by:
   A. Danielli and Davson   C. Singer and Nicholson
   B. Robert hook   D. Robert brown

54. The instrument which is used to study the microorganism is called:
   A. Microscope   B. Telescope   C. Illumination   D. Centrifuge

55. The microscope in which the visible light is used as source of illumination is called.
   A. Electron microscope   C. light microscope
   B. X-ray microscope   D. telescope

56. The microscope in which short wavelength X-rays are used as source of illumination is called
   A. Dissecting microscope   C. light microscope
   B. X-rays microscope   D. Electron Microscope

57. The isolation of cell components is called:
   A. Isolation   B. Composition   C. Fractionation   D. Decomposition

58. The spinning action in Fractionation is called
   A. Centrifugation   B. Centralization   C. Liberation   D. Isolation

59. The number of chromosomes in human being is: A. 42   B. 44   C. 45   D. 46

60. The number of chromosomes in corn is: A. 18   B. 20   C. 25   D. 30

Name: Date:

Chapter No:1.   **Introduction of Biology**

MCQS Test.

1. Parasitic organisms are studied the disciplines of:
   A. Microbiology
   B. Parasitology
   C. Mycology
   D. Phycology

2. .... is the introduction of harmful materials into the environment.
   A. Pollination
   B. Pollution
   C. Protection
   D. Conservation

3. .... unbroken series of species, progressing from ancestor to descendent, with each group evolving from one immediately preceding it.
   A. Phyletic lineage
   B. Fossils
   C. Evolution
   D. Not

4. Blood is.........
   A. Tissue
   B. Organ
   C. Molecule
   D. Cell

5. Chemical formula of Glucose:
   A. $C_6H_{12}O_6$
   B. $C_6H_{10}O_6$
   C. $C_6H_{12}O_5$
   D. $C_6H_{12}O_4$

6. A group of similar cells that perform a specific function is called.........
   A. Tissue
   B. Organ
   C. Autotrophic
   D. Organelle

7. .... also known as antibacterial, are medications that destroy or slow down the growth of bacteria.
   A. Vaccine
   B. Antibiotics
   C. Antigens
   D. Not

8. Multicellular are/is:
   A. Plants
   B. Animals
   C. Virus
   D. Both a & b

9. Study of tissue is called......
    A. Haematology
    B. Histology
    C. Cytology
    D. Physiology
10. Malaria is caused by:
    A. Virus
    B. Bacteria
    C. Fungi
    D. Plasmodium
11. The AIDS strand for:
    A. Acquired immunity declared syndrome
    B. Acquired immune developed syndrome
    C. Acquired immune deficiency syndrome
    D. Acquired immune deference syndrome
12. The branch of science dealing with the classification of life forms is called:
    A. Genetics
    B. Taxonomy
    C. Archaeology
    D. Palaeontology
    E. Biochemistry
13. The branch of science dealing with the fossil record is called:
    A. Genetics
    B. Taxonomy
    C. Archaeology
    D. Palaeontology
    E. Biochemistry
14. The technique used for identification of criminals is called:
    A. Cloning
    B. DNA fingerprinting
    C. Restriction analysis
    D. Polymorphism
    E. Gene sequence
15. Which character differentiates living things from non-living organisms?
    A. They live in the same ecosystem.
    B. They are acted upon by the same environment
    C. They are highly organized, and complex made of one or more cells and contain genetic material
    D. Both a and b
16. First vaccine introduced by:
    A. Edward jeener
    B. Robert hook
    C. Robert Koch
    D. None
17. The study of fossils is called:
    A. Environmental Biology
    B. Historical biology
    C. Palaeontology
    D. Social biology

Name: Date:

Work Power and Enery

MCQS Test.

1. Work done=
a. Fd   b. F/d   c. Fm   d. Fg

2. 1 joule =
a. 10^3 erg   b. 10^7 erg   c. 10^9 erg   d. 10^{10} erg

3. The SI unit of energy is:
a. newton   b. pascal   c. joule   d. erg

4. Power=
a. W/t   b. W/s   c. Wt   d. not

5. Watt is a SI unit of:
a. volume   b. pressure   c. temperature   d. power

6. The energy stored in a stretched spring is called:
a. elastic potential energy   b. kinetic energy   c. both   d. not

7. It is ability to do work is called:
a. work   b. energy   c. heat   d. pressure

8. K.E=
a. $\frac{1}{2}mv^2$ b. $\frac{1}{2}mp^2$ c. mgh   d. Wt

9. Power is .... quantity:
a. scalar   b. vector   c. unit   d. NOT

10. The energy is due to motion:
a. K.E   b. P.E   c. Both   d. not

11. Scalar product of force and displacement is:
a. work   b. energy   c. momentum   d. not

12. 1 horse power =
a. 373 watts   b. 376 watts   c. 476   d. 746

13. SI Unit of work:
a. joule   b. Newton   c. erg   d. watt

14. The scalar product of force and velocity is:
a. power   b. energy   c. work   d. wave

15. 1 watt=
a. Js   b. J/s   c. J/s^2 d. not

Name: Date:

BLOOD

MCQS Test.

1. Study of blood is known as:
a. nephrology   b. haematology   c. histology   d. pomology

2. RBCs are
a. red in color   b. non-nucleated   c. bi-concave   d. all

3. Life span of RBCs
a. 120 minute   b. 120 hours   c. 120 days   d. not

4. Haemoglobin found in RBCs contain:
a. iron   b. chlorine   c. hydrogen   d. not

5. RBCs are also called:
a. erythrocytes   b. leucocytes   c. thrombocytes   d. not

6. Deficiency of Platelets is called:
a. thrombocytopenia   b. anemia   c. leukemia   d. all

7. Which is incorrect:
a. Haemoglobin is a respiratory pigment   b. RBCs are produced in bone marrow
c. Plasma is non living and contain 90% water   d. Haemoglobin is lipid molecule

8. Blood is:
a. connective tiisue   b. circulate in blood vessels   c. having PH 7.4   d. all

9. Platelets help in / function:
a. oxygen supply   b. blood clotting   c. production of ATP   d. NOT

10. The process of making blood cells is called:
a. Hematopoiesis   b. hemolysis   c. gasification   d. not

11. Deficiency of RBCs (iron in RBCs) is called:
a. anemia   b. hemophilia   c. leukemia   d. not

12. Which proteins are found in plasma:
a. albumins   b. globulins   c. fibrinogen   d. all

13. Non living part of blood is:
a. RBCs   b. WBCs   c. plasma   d. all

14. Antibodies are produced by:
a. B lymphocytes   b. neutrophils   c. monocyte   d. all

15. Adult male have .... Blood:
a. 5-6 liters   b. 4-5 liters   c. 6-8 liters   d. 7-9 liters

Vitamin/ Mineral	Deficiency disease/disorder	Symptoms
Vitamin A	Loss of vision	Poor vision, loss of vision in darkness (night), sometimes complete loss of vision
Vitamin B1	Beriberi	Weak muscles and very little energy to work
Vitamin C	Scurvy	Bleeding gums, wounds take longer time to heal
Vitamin D	Rickets	Bones become soft and bent
Calcium	Bone and tooth decay	Weak bones, tooth decay
Iodine	Goiter	Glands in the neck appear swollen, mental disability in children
Iron	Anaemia	Weakness

Name: Date:

Scalar And Vector

MCQS Test.

1. **All are scalars quantities except:**

   A. Temperature   B. Volume   C. Mass   D. Velocity

2. **................are vectors quantities except:**

   A. Force   B. Electrical field   C. Acceleration   D. Time

3. **A vector in any direction and whose magnitude is unity is called......**

   A. Null vector   B. Unit vector   C. Free vector   D. Position vector

4. **What are vector quantities:**

   A. Weight and Mass   C. Force and Acceleration

   B. Velocity and speed   D. Velocity and Energy

5. **The quantities which can be added, subtracted, and multiplied by simple algebraic rules are**

   A. Scalers   B. Vector   C. Physical   D. Positive

6. **If the magnitude and direction of two vectors are same, then these vectors are:**

   A. Equal   B. Same   C. Equivalent   D. Opposite

7. **The vector is space has_____**

   A. Two components   C. One component

   B. Four components   D. Three components

8. **_____ is a scalar quantity**

   A. Torque   B. Distance   C. Momentum   D. Acceleration

9. **_____ is a vector quantity**

   A. Work   B. Density   C. Velocity   D. Temperature

10. **The splitting of a vector into its component is called:**

    A. Resultant vector   C. Negative Vector

    B. Resolution of a vector   D. Addition of a vector

11. **A vector whose magnitude will be same, but direction is opposite is called:**

    A. Resultant vector   C. Addition of vector

    B. Negative vector   D. Resolution of vector

12. Weight is a:

A. Scalar Quantity

B. Negative Vector

C. Vector quantity

D. addition of vector

13. Pressure is a:

A. Vector Quantity

B. Negative vector

C. Scalar Quantity

D. Addition of vector

14. Torque is a:

A. Vector Quantity

B. Negative Vector

C. Scalar Quantity

D. Addition of vector

15. Scalar quantities are specified only by:

A. Direction

B. Magnitude

C. Arrowhead

D. None

16. The method of adding vector is known as:

A. Law of Triangle

B. Head- To-Tail

C. Rectangular Components

D. Arithmetical rules

17. Force is a:

A. Vector Quantity

B. Head-To-Tail

C. Scalar Quantity

D. None

18. A vector is denoted by a:

A. Line

B. Ray

C. Arrowhead

D. Dot

Name: Date:

Motion

MCQS Test.

1. Change of position of a body in particular direction is called........

A. Distance   B. Velocity   C. Displacement   D. Not

2. The rate of change of its position in a particular direction is known as

A. Velocity   B. Acceleration   C. Displacement   D. Time

3. Velocity=   A. r/t   B. v/t   C. t/r   D.Not

4. Unit of velocity is: A. m/s   B. ms   C. m/s2   D. m/s3

5. Acceleration: A. v/t   B. v/t2   C. m/t   D. Not

6. If the velocity of a body is decreasing the acceleration is negative. The negative acceleration is known as

A. Retardation   B. Deceleration   C. Both   D. Not

7. Value of g: A. 9.8 m/s   B. 9.8 m/s   C. 2 9.8 m/s3   D. Not

8. The momentum of the system as well as the K.E of the system before and after collision is consverd i.e remains same in

A. Elastic collision   B. Inelastic   C. Both   D. Not

9. "To every action there is always an equal and opposite reaction" statement refers to:

A. Newton's first law   B. Newton's second law

C. Newton's third law   D. Not

10. The laws of motion deals with:

A. Force and acceleration   B. Width and Length

C. Vertical and Horizontal   D. viscosity and density

11. Swimming is possible on account of:

A. First law of motion   B. second law of motion

C. third law of motion   D. newton's law of gravitation

12. F=ma, is the mathematical expression_____

A. Newtons first law of motion   B. newton's second law of motion

C. newtons third law of motion   D. newton's law of gravitational

13. Newton's first law of motion gives definition of:

A. Force   B. Inertia   C. Both a and b   D. not

14. The statement '' to every action there is always equal and opposite reaction''. Is the statement of:

A. Newtons first law of motion   B. newton's second law of motion

C. newtons third law of motion   D. newton's law of gravitational

A. Kilogram
B. Meter
C. Gram
D. Newton

10. 10 second is called a:
   A. Nanosecond
   B. Macro second
   C. Microsecond
   D. Decasecond

11. 10^9 shows
   A. Mega
   B. Giga
   C. Kilo
   D. Peta

12. Physics can be defined as the study of:
   A. Chemical properties of matter
   B. Physical properties of matter
   C. Relation between matter and energy
   D. Both b and c

13. The unit of force is:
   A. Kilogram
   B. Newton
   C. Coulomb
   D. Pascal

14. The significant number 0.002 has, is/are:
   A. One
   B. Two
   C. Three
   D. Four

15. 10^{-9} second is called as
   A. Deci second
   B. Millisecond
   C. Microsecond
   D. Nano second

16. The fundamental unit of length in SI unit is:
   A. Kilogram
   B. Meter
   C. Yard
   D. foot

The Diatomic Elements

H_2	------>	**Hydrogen**
N_2	------>	**Nitrogen**
F_2	------>	**Fluorine**
O_2	------>	**Oxygen**
I_2	------>	**Iodine**
Cl_2	------>	**Chlorine**
Br_2	------>	**Bromine**

Have
No
Fear
Of
Ice
Cold
Beer

ughtCo.

PERIODIC TABLE OF ELEMENTS

PubChem

Legend:

1	Atomic Number
H	**Symbol**
Hydrogen	Name
Nonmetal	Chemical Group Block

1 H Hydrogen																	2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
55 Cs	56 Ba	·	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	··	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og

·	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
··	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

Vitamins	Diseases	Symptoms
Vitamin A	Night blindness	Poor sight vision, Loss of night vision
Vitamin B_1	Beriberi	Nervousness, Paralysis, Weak muscles
Vitamin B_3	pellagra	Dementia, Diarrhea, And Dermatitis
Vitamin B_5	Skin disorder	Cracks around the mouth, Nervous break down
Vitamin B_{12}	Pernicious anemia	Muscle and nerve paralysis, Extreme fatigue, Dementia and Depression.
Vitamin C	Scurvy	Bleeding gums, Swelling of joints
Vitamin D	Rickets	Week bones, Decaying teeth
Vitamin E	Heamorrhage	Clothing of blood affected

- 0.200 grams are equal to one carat.
- Voltammeter is an electrolytic cell for conducting electrolytic dissociation of electrolyte.
- 8 furlongs make one mile.
- A billion contain 1000 million. It has 9 zeroes.
Similarly a trillion has 12 zeroes, a quadrillion 15
zeroes, a quintillion 18 zeroes and a decillion 33
zeroes.
- One inch is equal to 2.5400 cms and one mile
is equal to 1.6093 kms.
- One micron is equal to One-thousandth of a millimeter.
- 2.47105 acres is equal to what SI unit-
Hectare

Significant figures

1. Significant figure of 980 is = 2
2. " " " 47500 = 3
3. " " " 308 = 3
3. " " " 20050 = 4
4. " " " 0.035 = 2
5. " " " 0.02500 = 04
6. " " " 3.090×10^6 = 4
7. " " " 0.003×10^{-4} = 1
8. " " " 6.67×10^{-11} = 3
9. " " " 3.30×10^{-12} = 3
10. 43.75 is rounded off as = 43.8 = 3
11. 56.8546 is " " " = 56.9 = 3
12. 73.650 is " " " = 73.6 = 3
13. 64.350 is " " " = 64.4 = 3

B	C	N	O	F	He
					Ne
Al	Si	P	S	Cl	Ar
Ga	Ge	As	Se	Br	Kr
In	Sn	Sb	Te	I	Xe
Tl	Pb	Bi	Po	At	Rn
Nh	Fl	Mc	Lv	Ts	Og

Noble Gases

Helium (He)
Neon (Ne)
Argon (Ar)
Krypton (Kr)
Xenon (Xe)
Radon (Rn)
Oganesson (Og)
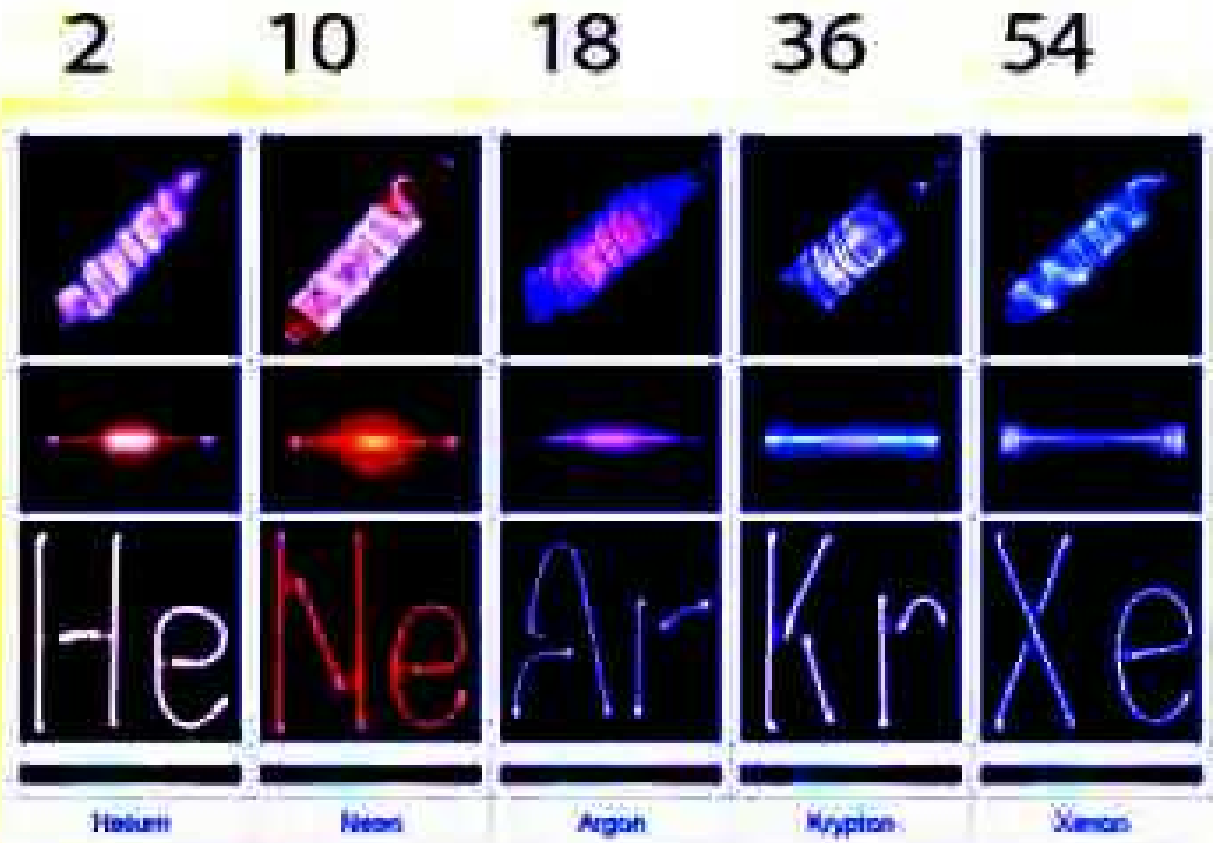
2	10	18	36	54

| Helium | Neon | Argon | Krypton | Xenon |

- Faraday: unit of electric charge
- Angstrom: unit of length, used especially to specify radiation wavelengths
- Parsec: unit of astronomical length
- Degree: unit of measurement of an angle
- Steradian: Unit of solid angle measurement
- Dyne is a unit of Force.
- SI unit of pressure is Pascal.
- Curie is a unit of : radioactivity
- Pascal Sound Pressure
- Torr Pressure
- Curie Intensity of radioactivity
- Angstrom Unit of length
- Light year The distance light travels in a year
- Dioptre Lens refractive power
- Horse power Unit of Power
- Radian Unit of angular measure
- Candela Unit of luminous intensity
- Mole unit of amount of substance

- Radio activity is measured in currie
- Rutherford : strength of radioactivity
- Torr: pressure
- Fermi : length [A unit of length equal to one femtometer (10-15 meter)]
- Sved berg unit:sedimentation rate
- Dioptre: power of lense
- Mho : conductivity
- Henry: inductance
- Maxwell: magnetic flux
- Becquerel: radioactivity
- Kilo watt hour: power
- Coulomb: unit of electrical charge
- Weber: unit of magnetic flux
- Tesla: unit of magnetic flux density
- Siemen: unit of conductance
- Rutherford: unit of rate of decay of radioactive material

- Unit of intensity or loudness of sound is bel
- Unit of viscosity is Poise
- Unit of flight speed is Mach I
- Unit of atmospheric pressure is milli bar
- Unit of wave length of light is Angstrom
- Unit of energy is Electron volt
- Unit of brightness is Lambert
- Unit of luminous flux is Lumen
- Intensity of illumination or unit of luminosity is
Lux, Candela and Candle power
- Unit of magnetic pole strength is Weber
- Unit of RAD (Radiation Absorbed Dose) is Gray
- Unit of Electric Current is Ampere
- Unit of inductance is Henry
- Unit of conductance is siemens.
- Unit of heat is Joule, Calorie, BTU (British Thermal Unit)

- Hertz and Angstrom are units of frequency
- Units of work and energy are Joule and Erg (CGS)
- Diopter is unit of power of lens
- Unit is density is kg/m3
- Unit of power is watt, BTU (Board of Trade Unit)
- Unit of electric charge is Coulomb
- Unit of voltage is volt
- Unit of electric resistance is ohm
- Unit of capacitance is Farad
- Unit of magnetic flux is Weber, Tesla
- Unit of radio activity is Becquerel
- Unit of luminous intensity is candle, lux
- Unit of crude oil is Barrel
- Unit of volume of water is cusec, cubic/sec
- Unit of admittance is Mho

- 6 feet = 1 fathom
- 1 kwh = 3.6 x 10 power 6 joules
- A 100 watt bulb lights for 1 hour uses 100 watt
hour of electricity
- -273 degree centigrade is called absolute zero
temperature.
- Standard pressure is 760 mm or 14.7 lb/in2
- Gross is equal to 12 dozens
- Mach 2 = 500 miles per hour
- 1 nautical mile = 1825 meters
- Unit of pressure is Pascal
- Force is measured in Newton (SI), Dyne (CGS)
- At -40 deg F Fahrenheit scale is equal to centigrade scale

Largest endocrine gland - Thyroid
Largest lymphatic organ - Spleen
Largest cell - Nerve cell
Largest part of brain - Cerebrum
Largest & strongest bone - Femur
Smallest muscle - Stapedius (Middle ear)
Number of chromosomes in human cell - 46 (23
pairs)
Number of bones in New born body - 300
Largest muscle - Buttock (Gluteus Maximus)
Everyday Science Mcqs Units of Measurment
1 horse power is 745.7 watts
• 1 horse power = work equal to lifting 550 lbs of
weight to one foot for one second
• 1 calorie is equal to 4.2 Joules
• 1 barrel is equal to 159 liters

Number of pumps in heart - 2
Largest organ - Skin
Largest gland - Liver
Smallest cell - Blood cell
Biggest cell - Egg cell (ovum)
Smallest bone - Stapes
First transplanted organ - Heart
Average length of small intestine - 7 m
Average length of large intestine - 1.5 m
Average weight of new born baby - 2.6 kg.
Pulse rate in one minute - 72 times
Body Temperature - 36.9o C (98.4o F)
Average blood volume - 4 - 5 liters
Average life of RBC - 120 days
Pregnancy period - 280 days
Number of bones in human foot - 33
Number of bones in each wrist - 8
Number of bones in hand - 27

Number of bones - 206
Number of muscles - 639
Number of kidneys - 2
Number of milk teeth - 20
Number of ribs - 24 (12 pairs)
Number of chambers in the heart - 4
Largest artery - Aorta
Normal Blood pressure - 120 - 80
Ph of blood - 7.4
Number of vertebrae in the spine - 33
Number of vertebrae in the Neck - 7
No of bones in middle Ear - 6
Number of bones in Face - 14
Number of bones in Skull - 22
Number of bones in Chest - 25
Number of bones in Arms - 6
Number of bones in each human middle ear - 3
Number of muscles in the human arm - 72

1 year $= 3.1536 \times 10^7$ seconds.

1 lightyear $= 9.47 \times 10^{15}\,m$ OR $9.47 \times 10^{12}\,km$.

1 angstrom $= 10^{-10}\,m$.

1 Fermi $\cdot 1f = 10^{-15}\,m$

1 litre $= 10^{-3}\,m^3$

1000 litre $= 1\,m^3$

<u>unit of</u> horse power $= 746$ watts $= 0.746\,KW$

$\frac{1}{2}$ Horse Power $= 373$ watts.

05