## COMMUNICATION SKILLS

(1) Samoa's climate is
a) Sultry
b) Sunny \& rainy
c) Hot \& humid
d) None of the above.
(2) The country Samoa was formerly
a) A German Colony
b) French Colony
c) Swiss Colony
d) All of the above.
(3) Most Samoa's are subsistence farmer who resides in
a) Small villages
b) Cities
c) Towns
d) All of the above.
(4) Phuchens are
a) Tantrik Lamas
b) Native People
c) Australian
d) None of the above
(5) Phuchen Lamas are
a) Tibetan Buddhist
b) Chinese Buddhist
c) Nepali Buddhist
d) All of the above.

## Antonyms:-

(6) Happy
a) Sad
b) Mirth
c) Sorrow
d) Love
(7) Costly
a) Precious
b) Valuable
c) Worthy
d) Cheap
(8) Love
a) Affection
b) Hate
c) Like
d) All of the above.

## Synonyms:-

(9) Dirty
a) Garbage
b) Filthy
c) Clean
d) None of the above
(10) Tick the correct punctuate sentences:-
'Later on his son made the wall clock'
a) Later on his son made the wall clock
b) Later on, his son made the wall-clock
c) Later on his son, made the wall clock.
d) Later on his son made the wall clock.
(11) Fill in the blank with appropriate form the verb of the word in bracket. Milky way galaxy is $\qquad$ (compose) of the millions of stars.
a) Composed
b) Composition
c) Compose
d) Decompose

## Tick the correct the spelling:-

(12)
a) Regional
b) Ragional
c) Regional
d) All of the above.
(13) a) Sylabus
b) Syllabus
c) Syllbus
d) All of the above.
(14) a) Performance
b) Parformance
c) Performance
d) Performance
(15) Mark words with suffix:-obey
a) unobey
b) Disobey
c) Obedient
d) All of the above.
(16) Tick the root word:-

Childish
a) Child
b) Childhood
c) Childlike
d) None of the above.
(17) Insert articles

Indian Express
a) Indian Express
b) The Indian Express
c) A Indian Express
d) All of the above.
(18) Tick mark the correct auxiliaries:-

She was running fast.
a) She
b) Running
c) Was
d) A
(19) Fill in the appropriate phrasal verbs:-

I have .......... my winter cloths
a) Drop off
b) Get off
c) Put away
d) None of the above.
(20) Communication includes
a) Sender
b) Receiver
c) Message
d) All the above.

## Sentence completion

21) The country Samoa was captured by ------
a) New Zealand
b) Australia
c) Indonesia
d) None of these
22) A piece of land that is completely surrounded by water -----
a) Island
b) Oasis
c) Garden
d) Country
23) Most visitors spend their time in $\qquad$
a) Independent Samoa
b) Andaman and Nicobar
c) Sunderban
d) All of the above

## Use appropriate verbs

24) My friend ----(kill) a snake yesterday
a) killed
b) has killed
c) is killing
d) All of the above
25) Sita is -------(dance) in her room
a) Dancing
b) Danced
c) had danced
d) ) none of the above
26) Did you $\qquad$ (finish ) your meal?
a) had finished
b) finished
c) finish
d) All of the above
27) Tick the pronoun in following statement

Imagine he is a writer
a) Imagine
b) He
c) Writer
d) His
28) They emphasized for the work
a) emphasized
b) they
c) for
d) work
29) A good paragraph should have
a) unity
b) coherence
c) simplicity
d) All of the above
30) Make meaningful word by deleting prefix from the word "Disapprove"
a) Approve
b) Disapproved
c) proved
d) Unapproved

## APPLIED MATHS

31) $\quad n_{p_{r}}=$
a) n !
r !
b) $\frac{(n-1)!}{r!}$
c) $\frac{\mathrm{n}!}{(\mathrm{n}-\mathrm{r})!}$
d) $\frac{\mathrm{n}!}{(\mathrm{n}-\mathrm{r})}$
32) How many signals can be made from five different colors taking three at a time.
a) 5
b) 10
c) 15
d) 20
33) $\quad 8 \mathrm{C}_{6}=$
a) 25
b) 26
c) 28
d) 20
34) $\quad \mathrm{ncr}=$
a) $\frac{n!}{r!}$
b) $n$ !
(n-r)!
c) $\frac{\mathrm{n}!}{\mathrm{r}!(\mathrm{n}-\mathrm{r})!}$
d) $(\mathrm{n}-\mathrm{r})$ !
r !
35) If x is so small that its square and higher powers can be neglected, then $(1+\mathrm{x})=$
a) $1+n^{2} x$
b) $1+n x+\frac{(n-1) x^{2}}{2!}+$ $\qquad$
c) $1+n x$
d) None of these.
(36) $1+n x+n(n-1) x^{2}+$ $\qquad$ $n(n-1)(n-2)$ $\qquad$ $.(n+r+1) x^{r}+x^{n}=$
a) $(1+x)^{n}$
b) $(1+1 / x)^{\mathrm{n}}$
c) $(1+n x)^{n}$
d) $(1+n x)^{-n}$
(37) The middle term in the expression of $(\mathrm{X} / \mathrm{Y}+\mathrm{Y} / \mathrm{X})$
a) $6^{\text {th }}$ Term
b) $5^{\text {th }}$ Term
c) $7^{\text {th }} \mathrm{Term}$
d) None of these.
(38) The expression $1 /\left(\sqrt{4}-3 x^{2}\right)\left(4-3 x^{2}\right)$ is valid for
a) $2 / 3>X>2 / 3$
b) $-2 / \sqrt{ } 3<X<2 / \sqrt{ } 3$
c) $\frac{2}{\sqrt{3}}>X>\frac{2}{\sqrt{3}}$
d) None of these.
36) The matrix $\left[\begin{array}{cc}4 & 0 \\ 0 & 24\end{array}\right]$ is an example of
a) Diagonal matrix
b) Skew Symmetric matrix
c) Unit matrix
d) Symmetric matrix
(40) What is the co-factor ofa in the matrix $\left[\begin{array}{ll}a & b \\ c & d\end{array}\right]$
a) c
b) a
c) $d$
d) $b$
(41) If $A=\left[\begin{array}{ll}4 & 5 \\ 3 & 9\end{array}\right]$ and $B=\left[\begin{array}{cc}-2 & -3 \\ 4 & 5\end{array}\right]$

The $\mathrm{AB}=$ $\qquad$
a) $\left[\begin{array}{ll}12 & 26 \\ 13 & 10\end{array}\right]$
b) $\left[\begin{array}{ll}12 & 26 \\ 13 & 10\end{array}\right]$
c) $\left[\begin{array}{ll}12 & 26 \\ 13 & 10\end{array}\right]$
d) $\left[\begin{array}{cc}12 & 26 \\ 13 & 10\end{array}\right]$
42) If $A=\left[\begin{array}{ll}4 & 3 \\ 2 & 5\end{array}\right]$, than $A^{2} \cdot 9 A+4 I=$
a) 70
b) 64
c) 74
d) 79
(43) $\quad$ Find a if $\log \mathrm{a}^{(343)}=3$
a) 3
b) 5
c) 7
d) 9
(44) $\quad \log a^{m}=$
a) $\log b^{m} X \quad \log a^{b}$
b) $\log a^{m} X \quad \log b^{a}$
c) $\frac{\log a a^{m}}{\log b^{b}}$
d) b and c both.
(45) $\operatorname{If} \log 3+\log X=\log 15$, Find $X$
a) 2
b) 5
c) 7
d) 2
e)
(46) The system of equations:- $2 \mathrm{X}-3 \mathrm{Y}-3=0$

$$
\begin{array}{r}
\mathrm{X}+3 \mathrm{Y}-2 \mathrm{Z}=0 \\
\mathrm{X}-3 \mathrm{Y}=0
\end{array}
$$

a) Unique solution
b) Infinite Solution
c) No solution
d) Nothing can be said.
(47) The expression $5 \mathrm{X}+6$ has $(\mathrm{X}+2)\left(\mathrm{X}^{2}+5 \mathrm{X}+6\right)$
a) Only one partial fraction
b) Two partial fractions
c) Three partial fractions
d) None of these.
(48) $\quad \log _{4}{ }_{4}^{(256)}=4$ can be expressed in the exponentive form as
a) $4^{256}=4$
b) $4^{4}=256$
c) $256^{4}=4$
d) None of these.
(49) $\quad \operatorname{Sin}(A+B)=$
a) $\operatorname{Sin} \mathrm{A} \operatorname{Sin} \mathrm{B}-\operatorname{Cos} \mathrm{A} \operatorname{Sin} \mathrm{B}$
b) $\operatorname{Sin} \mathrm{ACos} \mathrm{B}-\operatorname{Cos} \mathrm{A} \operatorname{Sin} \mathrm{B}$
c) $\operatorname{Sin} \mathrm{A} \operatorname{Cos} \mathrm{B}+\operatorname{Cos} \mathrm{A} \operatorname{Sin} \mathrm{B}$
d) $\operatorname{Cos} \mathrm{A} \operatorname{Cos} \mathrm{B}+\operatorname{Sin} \mathrm{A} \operatorname{Sin} \mathrm{B}$
(50) $\quad \operatorname{Sin} 15^{\circ}=$
a) $\frac{\sqrt{ } 3+1}{2 \sqrt{2}}$
b) $\frac{\sqrt{3}-1}{\sqrt{2}}$
c) $\frac{\sqrt{ } 3+1}{2}$
d) $\frac{\sqrt{ } 3-1}{2 \sqrt{2}}$
(51) $\operatorname{Sin} 50^{\circ}-\operatorname{Cos} 80^{\circ}=$ $\qquad$
a) $\operatorname{Sin} 30^{\circ}$
b) $\sqrt{ } 3 \sin 20^{\circ}$
c) $\frac{\sqrt{3}}{2} \sin 40^{\circ}$
d) $\sqrt{3} \operatorname{Cos} 20^{\circ}$
(52) 1 rod is approximately equal
a) $60^{\circ}$
b) $57.3^{0}$
c) $180^{\circ}$
d) $360^{\circ}$
(53) $\quad \underline{\tan 81^{0}}+\tan 69^{0}=$
$1-\tan 81^{\circ} \tan 69^{0}$
a) $1 / \sqrt{3}$
b) $-1 / \sqrt{3}$
c) $\sqrt{ } 3$
d) $\sqrt{3} / 2$
(54) $1-2 \operatorname{Sin}^{2} 5 \Theta=$ $\qquad$
a) $\operatorname{Sin} 2 \theta$
b) $\operatorname{Cos} 10 \Theta$
c) $\operatorname{Cos} 5 \theta$
d) $\operatorname{Cos}^{2} 10 \Theta$
(55) If $\operatorname{Cos} 2 \mathrm{~A}=0.6$, Find $\operatorname{Cos} \mathrm{A}$
a) 0.8
b) $\sqrt{ } 0.8$
c) 0.6
d) 0.4
(56) $\sqrt{2+\sqrt{2}+2 \operatorname{Cos} 4 \Theta}=$ $\qquad$
a) $\cos \theta$
b) $\operatorname{Sin} 2 \theta$
c) $2 \operatorname{Cos} \theta$
d) $\cos ^{2} \Theta$
(57) $\operatorname{Sin} 3 \mathrm{~A} / \operatorname{Sin} \mathrm{A}-\operatorname{Cos} 3 \mathrm{~A} / \operatorname{Cos} \mathrm{A}=$
e) 1
f) 4
g) 2
h) 0
(58) In the solution of a triangle when its two sides and included angle is given the is generally used
a) Sine formula
b) Cosine formula
c) Napier Analogy
d) Any of the above.
(59) A vertical tower stands on a horizontal plane and from a point on the ground at a distance of 30 m from the foot of the tower; the angle of elevation is $60^{\circ}$. The height of the tower is
a) 67.5 m
b) 51.9 m
c) 49 m
d) 70 m
e)
(60) The Graph of the function given by the equation $\mathrm{Y}=\mathrm{X}^{2}+\mathrm{X}$ is a
a) Hyperbola
b) Parabola
c) Ellipse
d) Straight line

## APPLIED PHYSICS

(61) Absolute unit of temperature is
a) Kelvin
b) ${ }^{0}$ Celsius
c) ${ }^{0}$ Fahrenheit
d) None of these
(62) What is dimensional formula for force?
a) $\mathrm{M}^{0} \mathrm{~L}^{1} \mathrm{~T}^{-2}$
b) $\mathrm{M}^{1} \mathrm{~L}^{0} \mathrm{~T}^{-1}$
c) $\mathrm{M}^{1} \mathrm{~L}^{1} \mathrm{~T}^{-2}$
d) $\mathrm{M}^{1} \mathrm{~L}^{2} \mathrm{~T}^{2}$
(63) Candela is the unit of
a) Surface Tension
b) Electric Field
c) Luminous Intensity
d) Magnetic field
(64) If $X=a+b t+c t$, where $X$ is in meters and $t$ in seconds value of $C$ is in
a) Meter/Sec
b) $\mathrm{Meter} / \mathrm{Sec}^{2}$
c) Meter second
d) None of these.
(65) Which of the following is not the application of dimensional analysis?
a) To check the correctness of physical relations
b) To derive relationship between physical quantities.
c) To convert one system of units to another system.
d) None of the above.
(66) One Kilowatt hour $=$
a) $36 \times 10^{3}$ Joule
b) $3.6 \times 10^{5}$ Joule
c) $36 \times 10^{5}$ Joule
d) $3.6 \times 10^{7}$ Joule
(67) Which of the following is the SI unit of energy?
a) Newton
b) Joule
c) erg
d) None of the above.
(68) According to the Principal of homogeneity of dimensions:-
a) Dimensions of the quantities on the left hand side of an equation need not be same as that of quantities on the right hand side.
b) Dimensions of the quantities on the left hand side of the equation must be the same as that of the quantities on the right hand side.
c) There is no relationship between the dimensions of quantities on the left hand and right hand side of the equation.
d) None of the above.
(69) Which of the following statement is false?
a) Electron volt is the unit of energy.
b) Dimensional formula for impulse is $\mathrm{M}^{1} \mathrm{~L}^{1} \mathrm{~T}^{-1}$
c) A Dimensionless physical quantity can have units.
d) Strain is dimensionless quantity.
(70) Three physical quantities having dimensional formula $\mathrm{ML}^{-1} \mathrm{~T}^{-2}$ are
a) Pressure, impulse, strain.
b) Pressure, stress, molulus of elasticity
c) Force, surface tension, viscosity
d) Acceleration, Torque, Pressure.
(71) $\quad 1$ Joule $=$ $\qquad$ .ergs.
a) $10^{5}$
b) $10^{7}$
c) $10^{6}$
d) $10^{9}$
(72) Pascal is the SI unit of
a) Viscosity
b) Stress
c) Strain
d) Surface Energy
(73) Which of the following is not the name of a physical quantity?
a) Kilogram
b) Impulse
c) Energy
d) Density
(74) The number of basic unit in SI system is
a) 5
b) 2
c) 7
d) 9
(75) Which of the following physical quantity has no dimensions but has units?
a) Angle
b) Viscosity
c) Velocity
d) Surface Tension.
(76) Which of the following changes when a particle is moving with uniform velocity?
a) Speed
b) Velocity
c) Acceleration
d) Position
(77) Torque acting on a system is zero, which of the following is conserved.
a) Linear momentum
b) Angular momentum
c) Moment of Inertia.
d) Angular velocity
(78) Spokes used in a cycle will increase
a) Moment of Inertia
b) Centripetal acceleration
c) Tangential acceleration
d) None of the above.
(79) Product of force and time is known as
a) Torque
b) Impulse
c) Inertia
d) Torque
(80) The relation $\mathrm{F}=\mathrm{ma}$ is derived from Newton's
a) First law of motion.
b) Second law of motion
c) Third law of motion
d) None of these.
(81) The statement " To every action, there is an equal and opposite reaction" is the statement of Newton's
a) First law of motion
b) Seconds law of motion
c) Third law of motion.
d) Any of the above
(82) A train is 100 m long and is moving with uniform velocity of $45 \mathrm{~km} / \mathrm{hr}$. The time it will take to cross a bridge 1 km long is nearly .sec.
a) 10
b) 20
c) 40
d) 90
(83) A particle moves along a circular path with constant speed, what is the nature of its acceleration?
a) Zero
b) Uniform
c) Its direction changes
d) Magnitude changes
(84) Which of the following statements about centrepetal and centrifugal forces is correct?
a) Centrepetal force balances the centrifugal force.
b) Centrepetal force is directed opposite to the centrifugal force.
c) Both act in the same direction.
d) Centrepetal by the body.
(85) Rocket works on the principle of conservation of
a) Energy
b) Momentum
c) Mars
d) None of the above.
(86) Which of the following is a vector quantity?
a) Mars
b) Force
c) Speed
d) Energy
(87) Two forces 60 N and 40 N are inclined at an angle of $60^{\circ}$. Find the resultant.
a) 90
b) 87.2
c) 50
d) 40
(88) Angle of banking is given by $\tan \tan \Theta=$
a)
$\mathrm{V}^{2} \mathrm{rg}$
(b) $\underline{V}^{-2}$
(C) $\frac{\mathrm{rg}}{\mathrm{V}^{2}}$
(d) $\mathrm{g} / \mathrm{rV}^{2}$
(89) Path followed by a projectile is
(a) Parabola
(b) Hyperbola
(c) Straight line
(d) Elliptical
(90) When a bus starts suddenly, the passengers will
a) Fall forward
b) Fall Backward
c) Remain straight
d) Nothing will happen

## APPLIED CHEMISTRY

(91) Charge carried by a radical is called
a) Covalency
b) Electrovalency
c) Valency
d) None of these
(92) What is the valency of copper in $\mathrm{Cu}_{2} \mathrm{O}$ ?
a) 1
b) 2
c) 0
d) 3
(93) What is the symbol for manganese?
a) Mn
b) Mg
c) M
d) Ma
(94) Which of the following statements is correct?
(i) Valency of Manganese is 2
(ii) Skelton equation indicates only the various reactants and products of a chemical reaction.
(iii) Valency of Mg in MgO is 1
(iv) Symbol for copper is Cu
(a) I, II, III, IV
(b) I, II, IV
(c) Only III
(d) I and II
(95) Give chemical name of the compound $\mathrm{K}_{4}\left[\mathrm{Fe}(\mathrm{CN})_{6}\right]$.
a) Potassium isocyanide
b) Potassium Ferrocyaride
c) Potassium Cyanide
d) None of these.
(96) Give chemical formula for sodium thiosulphate
a) $\mathrm{Na}_{2} \mathrm{SO}_{4}$
b) $\mathrm{NaSO}_{4}$
c) $\mathrm{Na}_{2} \mathrm{~S}_{2} \mathrm{O}_{3}$
d) $\mathrm{NaS}_{2} \mathrm{O}_{4}$
(97) Molecular formula of Glucose is $\mathrm{C}_{6} \mathrm{H}_{12} \mathrm{O}_{6}$. What is its empirical formula?
a) CHO
b) $\mathrm{CHO}_{2}$
c) $\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{O}_{3}$
d) $\mathrm{CH}_{2} \mathrm{O}$
(98) What is the $\%$ of Mg in $\mathrm{MgSO}_{4}$ Given that atomic weight of $\mathrm{Mg}=24, \mathrm{~S}=32, \mathrm{O}=16$
a) 20
b) 25
c) 30
d) 56.66
(99) Relationship between molecular formula and empirical formula is given by Molecular formula $=$ Empirical formula $\times \mathrm{n}$, where $\mathrm{n}=$
a) Molecular formula X Empirical formula
b) Empirical formula / Molecular formula
c) Molecular formula / Empirical formula
d) Empirical formula weight / Molecular formula weight
(100) When $\mathrm{C}_{2} \mathrm{H}_{2}$ burns in oxygen, it gives carbon dioxide and water. Write down Skelton chemical equation to represent this chemical change.
a) $\mathrm{C}_{2} \mathrm{H}_{2} \rightarrow \mathrm{CO}+\mathrm{H}_{2} \mathrm{O}$
b) $\mathrm{C}_{2} \mathrm{H}_{2}+\mathrm{O}_{2} \rightarrow \mathrm{CO}_{2}+2 \mathrm{H}_{2} \mathrm{O}$
c) $\mathrm{C}_{2} \mathrm{H}_{2}+\mathrm{O}_{2} \rightarrow \mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O}$
d) $2 \mathrm{C}_{2} \mathrm{H}_{2}+2 \mathrm{O}_{2} \rightarrow 2 \mathrm{CO}_{2}+4 \mathrm{H}_{2} \mathrm{O}$
(101) Balance the equation $\mathrm{P}_{2}+\mathrm{O}_{2} \rightarrow \mathrm{P}_{2} \mathrm{O}_{5}$
a) $2 \mathrm{P}_{2}+5 \mathrm{O}_{2} \rightarrow 2 \mathrm{P}_{2} \mathrm{O}_{5}$
b) $\mathrm{P}_{2}+2 \mathrm{O}_{2} \rightarrow \mathrm{P}_{2} \mathrm{O}_{5}$
c) $\mathrm{P}_{2}+6 \mathrm{O}_{2} \rightarrow 2 \mathrm{P}_{2} \mathrm{O}_{5}$
d) $2 \mathrm{P}_{2}+3 \mathrm{O}_{2} \rightarrow 3 \mathrm{P}_{2} \mathrm{O}_{5}$
(102) What is the correct sequence of steps involved in writing a chemical formula.
(i) Remove highest common factor of valencies.
(ii) Write the symbols of radicals with their valencies.
(iii) Shift the valencies as obtained above crosswise to the right bottoms of the radicals and remove the +ve or -ve sign.
a) I, II, III
b) II, I, III
c) II, III, I
d) III, II, I
(103) Match the correct pairs in column A and Column B
(i) Potassium permangnate - $\mathrm{SnCl}_{2}$
(ii) Lead acetate $-\mathrm{Ag}\left(\mathrm{S}_{2} \mathrm{O}_{3}\right)$
(iii) Silver thiosulphate

- $\mathrm{KMnO}_{4}$
(iv) Stannous chloride
- $\mathrm{Pb}\left(\mathrm{CH}_{3} \mathrm{COO}\right)_{2}$
a) 1 - I, 2 - IV, $3-1,4$ - II
b) 1 -III, 2 - IV, 3 - II, 4 - I
c) $1-\mathrm{II}, 2$ - III, 3 - IV, 4 - I
d) $1-\mathrm{I}, 2$ - III, 3 - IV, 4 - II
(104) Symbol of Berylium is
a) Ba
b) Be
c) Br
d) Bi
(105) Which of the following statement is correct?
(i) Radical can exist only in solutions.
(ii) Valency of Potassium in the formula $\mathrm{K}_{2} \mathrm{Cr}_{2} \mathrm{O}_{7}$ is 2 .
(iii)Zinc is a divalent atom.
(iv) Zincate is simple radical.
a) II, III
b) I, II, IV
c) I, III
d) II, III, IV
(106) What is the charge on an electron?
a) $1.602 \times 10^{23}$ Coulombs
b) $1.602 \times 10^{19}$ Coulombs
c) $1.602 \mathrm{X}_{10}{ }^{-19}$ Coulombs
d) $6.023 \times 10^{-23}$ Coulomb
(107) Sub atomic particles which carry unit +ive charge and have mass equal to $1.67 \mathrm{X}_{10}{ }^{-24}$ gm equal to that of hydrogen atom are called
a) Neutrons
b) $\alpha$-Particles
c) Protons
d) None of these.
(108) What is the number of protons in ${ }_{92} \mathrm{U}^{235}$
a) 235
b) 92
c) 143
d) None of these.
(109) Atoms of different elements having same mass number but different atomic numbers are called
a) Isotopes
b) Isobars
c) Isotones
d) None of these.
(110) Deuterium and Tritium are isotopes of
a) Sulphur
b) Nitrogen
c) Hydrogen
d) Phosphorous
(111) What is the maximum number of electrons in an orbital
a) 4
b) 2
c) 8
d) 12
(112) Space around the nucleus where there is maximum probability of finding an electron is called
a) Orbit
b) Orbital
c) Subshell
d) Quantum Space
(113) Maximum number of electrons in the $p$ subshell is
a) 2
b) 8
c) 6
d) 10
(114) An orbital can have maximum two electrons and if an orbital has two electrons, they must of opposite spin. This is the statement of
a) Aufbau Principal
b) Pauli's Exculsion Principal
c) Hund's rule
d) None of the above.
(115) How many quantum numbers are required to describe each electron of an atom in different orbitals?
a) 1
b) 4
c) 3
d) 2
(116) Principal quantum numbers are denoted by letters.
a) $\mathrm{s}, \mathrm{p}, \mathrm{d}, \mathrm{f}$
b) $\mathrm{K}, \mathrm{L}, \mathrm{M}, \mathrm{N}$
c) $P, Q, R, S$
d) $A, B, C, D$
(117) Letters s, p, d, f are used to represent
a) Spin quantum numbers
b) Azimuthal quantum numbers
c) Principal quantum numbers
d) Magnetic quantum numbers
(118) According to Heisenberg uncertainty Principal
a) Position and momentum of sub atomic particles can be measured simultaneously.
b) Position and momentum of subatomic particles can not be measured simultaneously.
c) Nothing can be said regarding measurement of velocity and position of subatomic particles.
d) None of the above.
(119) Which of the following statement is true regarding shape of $p$. orbitals?
a) There probability is identical in all directions around the nucleus.
b) Each p orbital is shaped like a dumb bell.
c) Each p orbital is elliptical in shape.
d) None of the above.
(120) The quantum number which is independent of the value of other quantum number is
a) Magnetic quantum number.
b) Principal quantum number
c) Spin quantum number.
d) Azimuthal quantum number.


## ENGINEERING DRAWING - 030015

(121) Size of BO Drawing board is
a) 1500 X 1000 X 25
b) $500 \times 350 \times 15$
c) $700 \times 500 \times 15$
d) $1000 \times 700 \times 25$
(122) Engineering drawing is the $\qquad$ representation of engineering objects.
a) Artistic
b) Free hand
c) Graphical
d) Real shape
(123) Geometrical drawing include projection of geometrical shapes like
a) Lines
b) Triangles
c) Squares
d) All of the above.
(124) The drafting machines have two arms that are $\qquad$ .apart.
a) $45^{\circ}$
b) $90^{\circ}$
c) $60^{0}$
d) $120^{\circ}$
(125) T-sqaure has the following parts
a) stock
b) blade
c) None of the two (a \& b)
b) Bothof the two (a \& b)
(126) The scale 100: 1 is a type of
a) Full scale
b) Enlarged scale
c) Reducing scale
d) Plain scale
(127) Clinograph is a $\qquad$ which is adjustable,
a) Set square
b) T square
c) Protractor
d) Rotring isograph
(128) Hard grade pencils are
a) 4 H to 9 H
b) $3 \mathrm{H}, 2 \mathrm{H}, \mathrm{H}, \mathrm{HB}, \mathrm{B}$
c) 2 B to 7 B
d) 4 H to $9 \mathrm{H} \&$
$3 \mathrm{H}, 2 \mathrm{H}, \mathrm{H}, \mathrm{HB}, \mathrm{B}$
(129) The size if A0 drawing sheet is (Trimmed)
a) $594 \times 841$
b) $841 \times 1189$
c) $420 \times 594$
d) $297 \times 420$
(130) The size of title block according to I.S.I is
a) $190 \mathrm{~mm} \times 70 \mathrm{~mm}$
b) $180 \mathrm{~mm} \times 70 \mathrm{~mm}$
c) $185 \mathrm{~mm} \times 65 \mathrm{~mm}$
d) $185 \mathrm{~mm} \times 90 \mathrm{~mm}$
(131) In solid geometrical drawing the object have
a) Length \& breadth
b) length \& height
c) breadth \& height
d) length,
breadth \& height
(132) Object line is used to represent
a) Outer features
b) Visible features
c) Outer \& Other visible features
d) None of the above
(133) Hidden line is
a) equally spaced dashed medium line
b) continuous thin line
c) continuous thin wave
d) long chain line
(134) Long chain thick lines are used to indicate
a) Surfaces which have to receive additional treatment
b) Cutting plane line
c) Edges
d) Outlines of adjacent parts
(135) Section lines are drawn at an angle
a) $45^{\circ}$
b) $60^{\circ}$
c) $90^{\circ}$
d) $120^{\circ}$
(136) Conventional representation of hidden line is
a)
b)

c)

d) Cln
(137) Give conventional representation of cutting plane line

(138) Free hand sketching technique allows
a) Freedom of line work
b) Freedom of hand
c) Freedom of both a \& b
d) Freedom of none of $\mathrm{a} \& \mathrm{~b}$
(139) Visible outlines edges are shown by
a) Continuous thick line
b) Continuous thin line
c) Long chain line
d) Long chain thick line
(140) Main parts of our drawing board are
a) Wooden screw, battens
b) Battens and strips
c) Wooden screw
d) Wooden screw, battens, strips \& ebony working edge
(141) Sketch book is used for
a) Recording sketches
b) Data
c) Notes and instructions
d) All of the above
(142) Commercial drawing is drawn with
a) Drawing pencils
b) Rotring isograph
c) Tracing paper
d) Tracing cloth
(143) Free hand sketching is a very convenient method of describing
a) A shape
b) An idea of an object
c) Thought of a technician
d) All of the above4
(144) What are the angles of set square
a) $45^{\circ}, 45^{\circ}, 90^{\circ}$
b) $30^{\circ}, 60^{\circ}, 90^{\circ}$
c) $60^{\circ}, 60^{\circ}, 30^{\circ}$
d) Both a \& b
(145) T- square is also used as a base for set square to draw
a) Vertical line
b) Inclined line
c) Parallel line
d) All of the above
(146) Give conventional representation of steel.
a)

b)

0)

d)

(147) Give conventional representation of lead.
a)

b)

c)

d)

(148) Give conventional representation of water and oil.
a)

b)

c)

d)

(149) Give conventional representation of gun metal.
a)

b)

c)

d)

(150) Give conventional representation of glass.
a)

b)

c)

d)


