

1. Who among the following first used the word 'Swarajya' in its political sense and accepted Hindi as the national language of India?
- (A) Raja Rammohan Roy (B) Swami Vivekananda
(C) Mahatma Gandhi (D) Bal Gangadhar Tilak
2. The Judge of the High Court in India is administered oath of office by
- (A) The chief Justice of the High Court
(B) The Governor of the State
(C) The President of India
(D) The Chief Justice of India
3. The Governor may recommend the imposition of the President's rule in the State
- (A) On the recommendation of the State legislature
(B) On the recommendation of the President
(C) On the recommendation of the Chief Minister
(D) If he is convinced that the government of the State cannot be carried on in accordance with the provisions of the Constitution of India
4. Electoral disputes arising out of Presidential and Vice-Presidential Elections are settled by
- (A) Election Commission of India
(B) Joint Committee of Parliament
(C) Supreme Court of India
(D) Speaker of Lok Sabha
5. Select the most appropriate one
- It _____ since early morning
- (A) Rained (B) Is raining
(C) Has been raining (D) Had been raining
6. Select the most appropriate one
- The train _____ before we reach station
- (A) Left (B) Has left
(C) Will have left (D) Had left



- 7 Select the most appropriate one :
The Counsel _____ to address the court.
(A) Rise (B) Rose
(C) Had arisen (D) Did rise
- 8 A child born after the death of his/her father is called :
(A) Orphan (B) Postulant
(C) Postilion (D) Posthumous
- 9 A school boy who cuts classes frequently is called :
(A) Defeatist (B) Sycophant
(C) Truant (D) Martinet
- 10 The correct meaning of : To fight tooth and nail -
(A) To fight a losing battle
(B) To fight purposefully
(C) To fight cowardly
(D) To make every possible effort to win
- 11 Select the most appropriate one :
If I were you, I _____ be careful with my words.
(A) Will (B) Would
(C) Shall (D) Should
- 12 Select the most appropriate one :
Of the two assistants he employed last month, I find Shyam _____
hardworking.
(A) Most (B) Only
(C) Least (D) More
- 13 What will come in place of the question mark (?) in the following series ?
N 5 V, K 7 T, ? , E 14 P, B 19 N
(A) I 10 R (B) H 10 Q
(C) H 9 R (D) H 10 R



- 14 In the year 1997, garment production of Company 'A' is more than that of Company 'B' but not more than that of Companies 'C' and 'D'. Production of Company 'E' is not as much as that of Company 'B'. However, it is more than that of Company 'C'. Which Company produced the highest number of garments?
- (A) A (B) C
(C) D (D) Data inadequate
- 15 If P \$ Q means P is father of Q, P # Q means P is mother of Q, P * Q means P is sister of Q, then how is Q related to N in N # L \$ P * Q?
- (A) Grandson (B) Granddaughter
(C) Nephew (D) Data inadequate
- 16 Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to that group?
- (A) PRT (B) QOM
(C) CEG (D) UWY
- 17 In a row of boys, Ganesh is twelfth from the left and Rajan is fifteenth from the right. When they interchange their positions, Rajan becomes twentieth from the right. How many boys are there in the row?
- (A) 30 (B) 29
(C) 32 (D) 31
- 18 In a certain code, PERFECT is written as RGTHGEV. How is a BROWN written in that code?
- (A) CSPXO (B) DSQYP
(C) CTQXP (D) DTQYP
- 19 What should come in place of the question mark (?) in the following letter-number series?
- B 2 E, D 5 H, F 12 K, H 27 N, (?)
- (A) I 58 Q (B) I 57 Q
(C) I 58 P (D) J 58 Q



- 20 Preheating is usually done while welding
(A) Aluminium (B) C.I.
(C) Copper (D) M.S.
- 21 Which one of the following is an inert gas used for welding ?
(A) Carbon monoxide (B) Hydrogen
(C) Oxygen (D) Argon
- 22 Which one of the following welding process uses consumable electrode ?
(A) Laser welding (B) TIG welding
(C) MIG welding (D) None of the above
- 23 In EDM the tool and work-piece are separated by
(A) Positive ions (B) Dielectric fluid
(C) Negative ions (D) A metal conductor
- 24 Which surfaces are usually wrung together ?
(A) Thread gauges (B) Gears
(C) Slip gauges (D) Drill shanks and collets
- 25 Hardest abrasive is
(A) Diamond (B) Silicon carbide
(C) Glass (D) Sand
- 26 Tool signature is comprises of how many elements?
(A) 7 (B) 5
(C) 6 (D) 9
- 27 At 'breakeven point'
(A) Only loss (B) Only profit
(C) No profit no loss (D) Can't say
- 28 A dummy activity completes the logical concept and it has
(A) Long duration (B) Very short duration
(C) Proportional duration (D) No duration



- 29 ABC analysis is used in
(A) CPM (B) Inventory control
(C) PERT (D) All of the above
- 30 A triac is a
(A) Unidirectional diode.
(B) Bidirectional thyristor.
(C) A combination of two P-N diodes.
(D) None of the above.
- 31 The device commonly used for triggering a triac is
(A) diode. (B) transistor.
(C) zener diode. (D) diac.
- 32 The decimal equivalent of binary 10011 is
(A) 7 (B) 21
(C) 17 (D) 19
- 33 A hydro-electric power station is commonly found in
(A) desert areas. (B) hilly areas
(C) swamps. (D) grasslands.
- 34 Which of the following enters the super heater of a boiler?
(A) Cold water. (B) Hot water.
(C) Wet steam. (D) Super-heated steam.
- 35 The disadvantage(s) of renewable sources of energy is/are
(A) intermittency.
(B) lack of dependability.
(C) availability in low energy densities.
(D) all of the above.
- 36 Which of the following is true ?
(A) Plant utilization factor = plant capacity factor \times plant load factor
(B) Plant load factor = plant utilization factor \times plant capacity factor
(C) Plant capacity factor = plant utilization factor \times plant load factor
(D) None of the above



- 37 A generating station which has a high investment cost and low operating cost is usually operated as _____
- (A) peak load station (B) base load station
(C) medium load station (D) none of the above.
- 38 The main advantage of ac transmission over dc transmission system is _____
- (A) less insulation problems
(B) low losses in transmission over long distances
(C) less instability problem
(D) none of the above.
- 39 The main reason for using high voltage for long distance power transmission is _____
- (A) reduction in transmission losses
(B) reduction in time of transmission
(C) increase in system reliability
(D) none of the above.
- 40 Thermal noise is independent of _____
- (A) Temperature (B) Center frequency
(C) Bandwidth (D) Boltz mann's constant
- 41 Balance modulator is used to generate _____
- (A) AM Signal (B) PM Signal
(C) DSBSC Signal (D) PAM Signal
- 42 Primary function of multiplexing in communication system _____
- (A) To select one radio channel from a wide range of transmitted channels
(B) To allow a number of signals to make use of a single communications channel
(C) To reduce the bandwidth of a signal
(D) To match the frequency range of a signal to a particular channel
- 43 Optical fiber uses _____ portion of Electromagnetic waves.
- (A) Between Infrared and Ultraviolet
(B) Ultraviolet
(C) UHF
(D) Infrared



- 44 In PCM system, quantization noise depends on
- (A) Sampling interval
(B) Number of quantization levels
(C) Frequency of information signal
(D) None of above
- 45 Image rejection in super-heterodyne receiver occurs at
- (A) RF Stage (B) Mixer Stage
(C) IF Stage (D) Detector stage
- 46 Following diode is used in AM detector circuit
- (A) Silicon diode (B) PIN diode
(C) Tunnel diode (D) Point contact diode
- 47 Bluetooth module communicates using _____
- (A) transmitter (B) receiver
(C) radio module (D) transponder
- 48 CDMA IS-95 technology uses one of following multiple access technique
- (A) FDMA (B) FHSS
(C) THSS (D) DSSS
- 49 PLL can be used to demodulate
- (A) AM (B) FM
(C) PM (D) PCM
- 50 An imaginary line connecting the points of equal elevation on the ground surface is known as
- (A) Contour line (B) Contour interval
(C) Horizontal equivalent (D) Contour gradient
- 51 The steel used in RCC is
- (A) Chromium steel (B) Stainless steel
(C) Mild steel (D) Cast steel



- 52 A portion of the brick cut across the width is known as
(A) Bed (B) Bat
(C) Base (D) Half brick
- 53 After casting, an ordinary cement concrete on drying
(A) Shrinks (B) Expands
(C) Remains unchanged (D) Swells
- 54 Free board in a dam is
(A) A type of shutter
(B) Name of storage
(C) Margin between the water level and top of the dam
(D) Board which moves freely on the surface of water
- 55 As per Indian standards the total number of links in a 30-meter chain should be
(A) 100 (B) 150
(C) 300 (D) 75
- 56 The quality of structured steel is normally identified by
(A) Yield stress (B) Ultimate stress
(C) Proof stress (D) None of the above
- 57 The highest point in an arch is known as
(A) Key stone (B) Crown
(C) Ridge (D) King closer
- 58 Two contour lines having the same elevation
(A) Cannot cross each other (B) Can cross each other
(C) Cannot unite together (D) Can unite together
- 59 If the whole circle bearing of any line as observed by a prismatic compass is 120° , its bearing on a surveyor's compass is
(A) S 20° E (B) S 60° E
(C) N 120° E (D) N 60° E



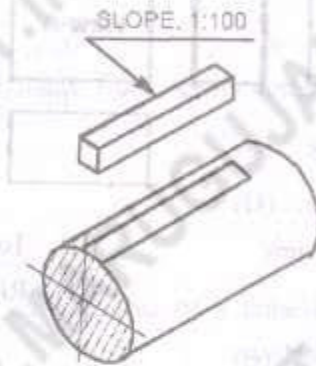
- 60 Over turning of vehicles on a curve can be avoided by using
(A) Transition curve (B) Mean curve
(C) Base curve (D) Common curve
- 61 Acoustical materials
(A) Reflect sound (B) Absorb sound
(C) Create sound (D) Increase sound
- 62 Rusting can be prevented by the applying coating of
(A) Red lead (B) White lead
(C) Zinc oxide (D) Bitumen
- 63 A barometer is used to measure
(A) Very low pressures
(B) Very high pressures
(C) Pressure difference between two points
(D) Atmospheric pressure
- 64 A strut is a
(A) Flexible member (B) Compression member
(C) Torsion member (D) Tension member
- 65 Unit of Representative Fraction (R.F.) is _____
(A) mm (B) mm²
(C) mm³ (D) Unit less
- 66 When a bullet is shot in air, the path travelled by a bullet is called
(A) Hyperbola (B) Parabola
(C) Ellipse (D) Cycloid
- 67 If a plane is parallel to the plane of projection, it appears
(A) As a line or edge (B) Foreshortened
(C) As an oblique surface (D) True size



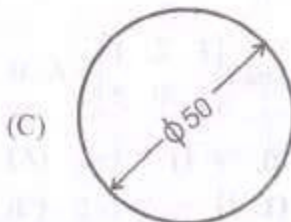
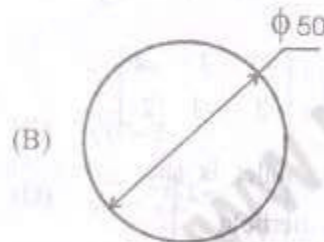
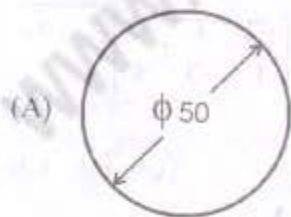
- 68 A circular arc is dimensioned in the view where you see its true shape by giving the value for its
- (A) Diameter (B) Arc length
(C) Radius (D) Chord Length

- 69 Another term for orthographic projection is
- (A) Isometric drawing (B) Oblique drawing
(C) Perspective (D) Multiview drawing

- 70 The key shown in figure is

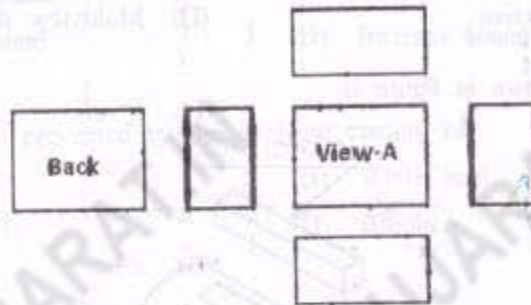


- (A) Flat saddle key (B) Wood ruff key
(C) Feather key (D) Gib head key
- 71 Parallel lines can be drawn with the help of
- (A) Mini-drafter (B) T-square
(C) Pair of set squares (D) All of these
- 72 Which one is incorrect way of dimensioning ?



- 73 In isometric projection, the four center method is used to construct
- (A) A square (B) A circle
(C) A triangle (D) A rectangle

- 74 According to its position, view X in the illustration below is the



- (A) Left hand side view (B) Top view
(C) Front view (D) Right hand side view

75 $\begin{bmatrix} 2 & 5 \\ -7 & 3 \end{bmatrix} + \begin{bmatrix} 3 & -5 \\ 7 & 2 \end{bmatrix} =$ _____

- (A) I_2 (B) $2I_2$
(C) $3I_2$ (D) $5I_2$

76 If $A = \begin{bmatrix} 1 & -3 & 4 \\ -2 & 1 & -2 \end{bmatrix}$ then $A^T =$ _____

- (A) $\begin{bmatrix} -1 & 3 & -4 \\ 2 & -1 & 2 \end{bmatrix}$ (B) $\begin{bmatrix} -2 & 1 & -2 \\ 1 & -3 & 4 \end{bmatrix}$
(C) $\begin{bmatrix} 1 & -2 \\ -3 & 1 \\ 4 & -2 \end{bmatrix}$ (D) A

- 77 _____ is not an unit vector.

- (A) (1, 0) (B) (0, -1)
(C) (0, 1, 0) (D) (1, 1)



78 If $\vec{x} = (2, 0)$, $\vec{y} = (0, 3)$ then $|\vec{x} + \vec{y}|$ _____ $|\vec{x}| + |\vec{y}|$

- (A) < (B) >
(C) = (D) None of these

79 Base of a triangle is 12 cm and its altitude is 5 cm. The area of triangle is _____

- (A) 60 cm² (B) 30 cm²
(C) 60 cm (D) 30 cm

80 The area of a circle made from 8π cm long wire is _____ cm²

- (A) 4π (B) 8π
(C) 16π (D) 12π

81 The formula for the surface area of a cube is _____

- (A) lbh (B) $l+b+h$
(C) $2(lb+bh+hl)$ (D) $lb+bh+hl$

82 Volume of a cylinder having radius 7 cm and height 10 cm is _____

- (A) 70π cm² (B) 70π cm³
(C) 490π cm² (D) 490π cm³

83 $\frac{2}{\sqrt{6}-2} =$ _____

- (A) $\sqrt{6}+2$ (B) $\sqrt{6}-2$
(C) $\sqrt{6}+\sqrt{2}$ (D) $\sqrt{6}-\sqrt{2}$

84 If $A = \begin{bmatrix} 1 & 2 & 3 \\ 5 & 0 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 7 & 1 \\ -1 & 2 \end{bmatrix}$ then order of matrix AB is _____

- (A) 2×3 (B) 3×2
(C) 2×2 (D) AB does not exist



- 85 Which of the following is an advantage to using fiber optic data transmission ?
(A) Resistance to data theft (B) Fast data transmission
(C) Low noise level (D) All of the above
- 86 In C, strings are character array. The last index of it contains which null terminator character
(A) \n (B) \t
(C) \0 (D) \1
- 87 Pseudo instructions are basically
(A) Instructions that are treated like command
(B) Instructions that are ignored by microprocessor
(C) Assembler directives
(D) False instruction
- 88 De-multiplexers supports
(A) Decimal to hexadecimal (B) Single input, multiple outputs
(C) AC to DC (D) Odd parity to even parity
- 89 A protocol is a set of rules governing a time sequence of events that must take place
(A) Between peers (B) Between an interface
(C) Between modems (D) Across an interface
- 90 Which command is used to remove records including their structure
(A) DELETE (B) DROP
(C) REMOVE (D) None of the above
- 91 DCL stands for
(A) Data Control Language (B) Data Common Language
(C) Data Combination Language (D) Data Cancel Language
- 92 Virtual memory is
(A) Extremely large main memory
(B) Extremely large secondary memory
(C) An illusion of an extremely large memory
(D) A type of memory used in super-computer



- 93 Which operator is used for searching data within a specified range
(A) IN (B) LIKE
(C) ORDER BY (D) BETWEEN
- 94 The process of defining a super class from sub class based on some common characteristics is known as
(A) Specialization (B) Generalization
(C) Categorization (D) None of the above
- 95 Blood does not coagulate inside the body due to the presence of
(A) Haemoglobin (B) Heparin
(C) Fibrin (D) Plasma
- 96 Which one among the following is responsible for formation of 'Ozone Holes' in the stratosphere?
(A) Benzopyrene (B) Hydrocarbons
(C) Chlorofluorocarbons (D) UV radiation
- 97 Which one among the following groups of animals maintains constant body temperature in changing environmental conditions?
(A) Birds (B) Amphibians
(C) Fishes (D) Reptiles
- 98 A person feeds on rice and vegetable made up of potato only. He is likely to suffer from deficiency of :
(A) Carbohydrate and vitamins (B) Proteins
(C) Carbohydrate and proteins (D) Proteins and fats
- 99 Which one among the following countries won the ICC Women's World Cup, 2013 held in India?
(A) India (B) West Indies
(C) Australia (D) Sri Lanka
- 100 The 'Thomas Cup' is associated with:
(A) Table Tennis (B) Lawn Tennis
(C) Badminton (D) Billiards

