

- Q.1) Which of the following physical quantities is not a vector?
a) mass
b) momentum
c) impulse
d) acceleration
- Q.2) Newton's second law of motion connects
a) change of momentum and velocity
b) momentum and acceleration
c) momentum and rate of change of force
d) rate of change of force and external momentum
- Q.3) Which of the following pairs of con- current forces cannot have the resultant of 4 N?
a) 2N and 2N
b) 2N and 4 N
c) 2N and 6 N
d) 2N and 8 N
- Q.4) A passenger train takes 2 hr less for a journey of 300 km if its speed is increased by 5 km/hr over its usual speed. What is then the usual speed?
a) 15 km/hr
b) 29 km/hr
c) 25 km/hr
d) 30 km/hr
- Q.5) When a body executes simple harmonic motion, there is always a constant ratio between the displacement of mass and its
a) frequency
b) velocity
c) time period
d) acceleration
- Q.6) The rotational analogue of force in linear motion is
a) couple
b) torque
c) moment of momentum
d) moment of inertia
- Q.7) The moment of inertia of a triangle of base b and altitude h with respect to centroidal axis parallel to its base would be
a) $bh^3/4$
b) $bh^3/18$
c) $bh^3/12$
d) $bh^3/36$
- Q.8) Toughness of the material signifies
a) strength
b) softening
c) brittleness
d) fatigue resistance
- Q.9) The percentage elongation of material as obtained from static tension test depends upon the
a) diameter of test specimen
b) gauge length of the specimen
c) nature of end grips of the testing machine
d) geometry of the test specimen
- Q.10) Pick the odd one out
a) stiffness
b) resilience
c) endurance limit
d) elastic strength
- Q.11) The sum of the frequencies prior to particular class is called
a) mean
b) mode
c) median
d) cumulative frequency
- Q.12) Ionic reactions generally occurs in
a) Gas phase
b) Liquid phase
c) Non-polar solvents
d) Solution in polar solvents
- Q.13) Select the heterogeneous system
a) Mixture of gases in atmosphere
b) Medium inside a cooker
c) Mixture of ice and water
d) Mixture of ice, water and steam

- Q.14) The passage of current in an electrolyte is due to the movement of
a) Electrons
b) Particles
c) Molecules
d) Ions
- Q.15) Loudness of sound is a function of
a) Frequency
b) Amplitude
c) Pitch
d) Ripple factor
- Q.16) Cathode rays have particle nature, is proved by the fact that they
a) Produce fluorescence
b) Travel in straight line
c) Gets deflected by electric and magnetic fields
d) Carry current
- Q.17) Which of the following is a bigger quantum of pressure
a) 1 Kg / cm^2
b) 1 inch of mercury
c) 1 m of water column
d) 1 Kg / mm^2
- Q.18) Powder clings to skin because of following property
a) Adhesion
b) Cohesion
c) Surface tension
d) Capillary action
- Q.19) The velocity vector in SHM with respect to displacement vector
a) Is in phase
b) Leads by 90 degrees
c) Lags by 90 degrees
d) Leads by 180 degrees
- Q.20) The direction of movement of molecules in a solid is
a) Cyclic
b) Helical
c) Circular
d) Back and forth like tiny pendulum
- Q.21) Vacuum tubes utilise following method of electron emission
a) Mechanical
b) Magnetic field
c) Electric field
d) Thermionic
- Q.22) The function of modulation is to
a) Multiply a number of signals
b) Transmit information over long distance
c) Reduce noise
d) Reduce the bandwidth requirement
- Q.23) Which of the following amplifier has largest bandwidth
a) RC coupled amplifier
b) Transformer coupled amplifier
c) Directed coupled amplifier
d) Differential amplifier
- Q.24) Which of the following is a semiconductor
a) Carbon
b) Molybdenum
c) Magnesium
d) Germanium
- Q.25) A parallel AC circuit in resonance will
a) Have high impedance
b) Generate maximum noise
c) Generate maximum heat
d) Generate maximum power
- Q.26) Non Conductors whose polarisation is caused by an electric field are known as
a) Dielectric
b) Super conductors
c) Semi-conductors
d) Insulators
- Q.27) The cells are connected in series to
a) Increase the current output
b) Decrease the internal resistance
c) Increase the voltage output
d) Increase the power rating
- Q.28) A series motor at no load develops
a) 0 speed
b) Average speed
c) Rated speed
d) Infinite speed
- Q.29) The following motor is preferred for the locomotive motor drives
a) AC series motor
b) Induction motor
c) DC series motor
d) Single phase motor

- Q.30) The torque of DC series motor with increase in speed
- Increases gradually
 - Decrease linearly
 - First decreases rapidly and then slowly
 - Remains constant
- Q.31) Which of the following motor has high starting torque
- AC motor
 - Induction motor
 - Synchronous motor
 - DC series motor
- Q.32) The maximum temperature permitted for class A insulation is
- 180 C
 - 105 C
 - 120 C
 - 155 C
- Q.33) The material used for fuse must have
- Low melting point and low specific resistance
 - Low melting point and high specific resistance
 - High melting point and low specific resistance
 - Low melting point with any specific resistance
- Q.34) The Wheatstone bridge is used to measure
- Low value of current
 - High value of current
 - Resistance value
 - Low value of voltage
- Q.35) Which of the following indicators is suitable only for direct current
- Permanent magnet
 - Electro dynamic
 - Moving iron
 - Hot wire
- Q.36) The maximum amount by which the result differs from the true value is called
- Correction
 - Discrepancy
 - Error
 - accuracy
- Q.37) Which of the following instrument is most accurate
- Vertical caliper
 - Manometric screw gauge
 - Optical projector
 - Slip gauges
- Q.38) Optical flats are made up of
- Quartz
 - Glass
 - Plastic
 - Silicon
- Q.39) The purpose of ratchet screw in micrometer screw gauge is
- To lock a dimension
 - To impart blow motion
 - To maintain sufficient and uniform measuring pressure
 - To allow zero adjustment
- Q.40) A balloon lifting in air follows the
- Law of gravitation
 - Archimedes principle
 - Principle of buoyancy
 - All of above
- Q.41) The number of slip gauge in a set are
- 87
 - 45
 - 103
 - All above are available
- Q.42) Accuracy
- repeatability of measuring process
 - error of judgment in recording an observation
 - the least resolution of an instrument
 - agreement of the result of measurement of true value of the measured quantity
- Q.43) Surface roughness drawings are represented by
- triangle
 - circle
 - square
 - rectangles

- Q.44) Planer gauge is used for
- Testing the flatness of the surface
 - Adding to utility of measurements on surface plate
 - Angular measurement
 - None of these
- Q.45) A sine bar is used to measure
- Gear profiles
 - Internal tapers
 - External tapers
 - All of above
- Q.46) If A and B are non singular matrices of same order , then $(AB)^{-1}$ is equal to
- $A^{-1}B^{-1}$
 - $B^{-1}A^{-1}$
 - AB^{-1}
 - AB
- Q.47) The system of equations $a_1x + a_2y = 0$
 $b_1x + b_2y = 0$
 where a_1, b_1, a_2, b_2 are real nos. has a non-trivial solution if
- $a_1b_1 = a_2b_2$
 - $a_1b_2 = b_1a_2$
 - $a_1a_2 = b_1b_2$
 - none of these
- Q.48) The function $F(x) = 3x(x-2)$ has a
- minimum at $x = 1$
 - maximum at $x = 1$
 - minimum at $x = 2$
 - maximum at $x = 2$
- Q.49) A card is taken out of a pack of 52 cards numbered from 2 to 53. The probability that the number on the card is prime number less than 20 is
- 1/13
 - 2/13
 - 3/13
 - 4/13
- Q.50) A man alternately tosses a coin and throws a dice, beginning with a coin. Then the probability that he will get a head before he gets a 5 or 6 on dice is
- 1/4
 - 3/4
 - 4/5
 - 4/7
- Q.51) The convergence of which of the method is sensitive to starting value?
- false position
 - Gauss – Siedel method
 - Newton – Raphson Method
 - All of these
- Q.52) Reynolds number for the pipe flow is given as
- vD/v
 - $vD\mu/\delta$
 - $vD\rho/\mu$
 - vD/μ
- Q.53) Steady flow occurs when
- Pressure does not change across the flow
 - Velocity does not change
 - Conditions change gradually with time
 - Conditions do not change with time at any point
- Q.54) In a turbulent flow in a pipe
- Reynolds no. > 1000
 - Fluid particles flow in a straight line
 - Head loss varies linearly with flow rate
 - Shear stress varies linearly with radius
- Q.55) Control Volume refers to
- specified mass
 - fixed region ion space
 - closed system
 - none of the above
- Q.56) For a closed system difference between the heat added to the system and work done by gas , is equal to change in
- enthalpy
 - entropy
 - internal energy
 - temperature

- Q.57) The sequence of the process that eventually returns the working substance to its original state, is known as
- Event
 - Thermodynamic cycle
 - Thermodynamic property
 - None of these
- Q.58) A system consisting of one or more phase is called
- Isolated system
 - Open system
 - Non-uniform system
 - Heterogeneous system
- Q.59) A gas which obeys kinetic theory is perfectly
- Pure gas
 - Real gas
 - Perfect gas
 - All of the above
- Q.60) The difference between two specific heats of a gas is equal to universal gas constant, when
- 1 gm of gas is heated
 - 1 gm molecule of gas is heated
 - 1 mole of gas is heated
 - Any quantity of gas is heated
- Q.61) Non-quasi-static process is
- Free expansion of gas
 - Expansion of gas in a cylinder under constant pressure
 - Rapid compression of gas in a cylinder
 - Gradual compression of gas in a cylinder
- Q.62) The Carnot cycle consists of two adiabatic processes and
- Two isothermal processes
 - Two constant pressure processes
 - Two constant volume processes
 - One constant pressure processes
- Q.63) In a reversible isothermal process undergone by an ideal gas
- Heat transfer is zero
 - Change in internal energy is zero
 - Work done is zero
 - Heat transfer is positive and work done is zero.
- Q.64) The deformation per unit length in the direction of load is called
- Lateral strain
 - Shear strain
 - Linear or longitudinal strain
 - Volumetric strain
- Q.65) Which amongst the following substance, is most elastic
- Brass
 - Aluminium
 - Rubber
 - Steel
- Q.66) In a strained body, normal stress on two mutually perpendicular planes are σ_x and σ_y (both alike) accompanied by a shear stress τ_{xy} . One of the principal stresses will be zero, only if
- $\tau_{xy} = (\sigma_x \times \sigma_y) / 2$
 - $\tau_{xy} = (\sigma_x \times \sigma_y)$
 - $\tau_{xy} = \sqrt{(\sigma_x \times \sigma_y)}$
 - $\tau_{xy} = \sqrt{(\sigma_x^2 \times \sigma_y^2)}$
- Q.67) For a thin cylinder, the ratio of thickness to internal diameter is of the order of
- 1/10
 - 1/20
 - 1/30
 - 1/40
- Q.68) The shape of the bending moment diagrams for a cantilever beam carrying a uniformly distributed load is
- A straight line
 - A hyperbola
 - An ellipse
 - A parabola
- Q.69) Process of diffusion of one liquid into other through a semi permeable membrane is called
- Viscosity
 - Osmosis
 - Surface tension
 - Cohesion

- Q.70) Wake always occurs
 a) Before a separation point b) After a separation point
 c) Before and after a separation point d) None of these
 point
- Q.71) One _____ not smoke.
 a) shall b) might
 c) would d) should
- Q.72) If I won the lottery, I _____ afford to leave my job.
 a) might b) will
 c) shall d) should
- Q.73) Tina is not answering the phone. She _____ be out.
 a) will b) might
 c) shall d) would
- Q.74) I _____ paint well.
 a) could b) might
 c) can d) may
- Q.75) I thought he _____ in office.
 a) might b) could
 c) can d) may
- Q.76) _____ I ask from where you have purchase these plants?
 a) can b) could
 c) may d) shall
- Q.77) Everyone _____ to sit quietly in the class.
 a) has b) is
 c) have d) are
- Q.78) Meena did not play so _____ as Sita did.
 a) good b) well
 c) better d) best
- Q.79) Traffic _____ by the cops now.
 a) controlled b) is controlling
 c) is being controlled d) is controlled
- Q.80) An apple was _____ by Geeta.
 a) eaten b) eat
 c) eats d) ate
- Q.81) સાચી જોડણી લખો - “ગીરીશ”
 a) ગિરિશ b) ગિરિસ
 c) ગીરિસ d) ગિરીશ
- Q.82) વિરૂધ્ધાર્થી શબ્દ આપો - “અનુજ”
 a) પ્રથમ b) પુર્વજ
 c) પુર્વિકા d) પૂરોગામી
- Q.83) સાહિત્યના ક્ષેત્રમાં ભારતમાં સૌથી ઉચ્ચ એવોર્ડ કયો છે.
 a) શક્તિપીઠ b) વિદ્યાપીઠ
 c) જ્ઞાનપીઠ d) તેજપીઠ

- Q.84) શબ્દ સમુહ માટે એક શબ્દ આપો - “પહેલા કદી ન બન્યું હોય તેવું”
- a) અજાયબ b) બેનમૂન
c) અભૂતપૂર્વ d) અગણિત
- Q.85) સંધિ છુટી પાડો - સપ્તર્ષિ
- a) સપ્ત + ઋષિ b) સપત + ઋષી
c) સપત + અઋષી d) સપ્ત + અઋષિ
- Q.86) સંધિ જોડો - પ્રતિ + સ્થિત
- a) પ્રતીષ્ઠીત b) પ્રતિષ્ઠિત
c) પ્રતીષ્ઠિત d) પ્રતીષ્ઠિત
- Q.87) વિશેષણ બનાવો - ધાર્મિકતા
- a) અધાર્મિક b) ધાર્મીક
c) ધાર્મિક d) અતિ ધાર્મીક
- Q.88) વિરૂધ્ધાર્થી શબ્દ આપો - “વ્યય”
- a) નૂકશાન b) નકામુ
c) બચત d) કંજૂસાઈ
- Q.89) એક પ્રશ્ન વાક્ય ઓળખો.
- a) તમે આવ્યા છો b) ગમ્મત સાથે મજાક કરવી.
c) કોણ ક્યારે આવશે d) તમે આ શુ માંડ્યુ છે
- Q.90) ભાવ વાચક નામ બનાવો - નાનું
- a) નાનમ b) નાનપણ
c) જરિક d) નાનું- મોટું
- Q.91) ગુજરાતના કયા નાણાપ્રધાને સૌથી વધુ વખત બજેટ રજુ કર્યું છે.?
- a) સનત મહેતા b) વજુભાઈ વાળા
c) નરહરિ અમીન્ d) અરવિંદ સંઘવી
- Q.92) નીચેનામાંથી કયો કેન્દ્રશાસિત પ્રદેશ નથી.
- a) દીવ b) ગોવા
c) દમણ d) લક્ષદિપ
- Q.93) ભારતિય ચલચિત્રના પિતામહ કોને ગણવામાં આવે છે.
- a) અશોકકુમાર b) અમિતાભ બચ્ચન
c) દાદાસાહેબ ફાળકે d) દિલીપકુમાર

Q.94) મુંબઈ કેટલા ટાપુઓનો સમુહ છે.

- a) નવ
b) પાંચ
c) આઠ
d) સાત

Q.95) મુંબઈમાં આવેલું વિક્ટોરીયા ટર્મિનસ રેલ્વે સ્ટેશન હવે કયા નામે ઓળખાય છે.

- a) મરાઠા ટર્મિનસ
b) રાણા પ્રતાપસિંહ ટર્મિનસ
c) છત્રપતિ શિવાજી ટર્મિનસ
d) વિરાંગના ટર્મિનસ

Q.96) ભારતના સૌપ્રથમ અવકાશયાત્રી કોણ છે.

- a) રાજેશ શર્મા
b) રોકેશ શર્મા
c) રાજેશ વર્મા
d) રોકેશ વર્મા

Q.97) તાજમહેલ ક્યાં આવેલો છે.

- a) અલ્હાબાદ
b) આગ્રા
c) અજમેર
d) જયપુર

Q.98) ભારતની સૌથી મોટી હોસ્પિટલ કઈ છે.

- a) શાલ હોસ્પિટલ
b) સિવિલ હોસ્પિટલ, અમદાવાદ
c) લોહિયા હોસ્પિટલ
d) AIIMS હોસ્પિટલ, દિલ્હી

Q.99) દીને ઈલાહી ધર્મની સ્થાપના કોણે કરી?

- a) બાબર
b) ઔરંગઝેબ
c) સમ્રાટ અકબર
d) બિરબલ

Q.100) સરહદના ગાંધી તરીકે કોણ ઓળખાય છે?

- a) મોહનદાસ કરમચંદ ગાંધી
b) ખાન અબ્દુલ ગફારખાન
c) ગુલાબનબી આઝાદ
d) મોહમંદઅલી ઝીણા

- Q.1) If I won the lottery, I _____ afford to leave my job.
 a) might b) will
 c) shall d) should
- Q.2) One _____ not smoke.
 a) shall b) might
 c) would d) should
- Q.3) Tina is not answering the phone. She _____ be out.
 a) will b) might
 c) shall d) would
- Q.4) Wake always occurs
 a) Before a separation point b) After a separation point
 c) Before and after a separation point d) None of these
- Q.5) I _____ paint well.
 a) could b) might
 c) can d) may
- Q.6) Process of diffusion of one liquid into other through a semi permeable membrane is called
 a) Viscosity b) Osmosis
 c) Surface tension d) Cohesion
- Q.7) I thought he _____ in office.
 a) might b) could
 c) can d) may
- Q.8) The difference between two specific heats of a gas is equal to universal gas constant , when
 a) 1 gm of gas is heated b) 1 gm molecule of gas is heated
 c) 1 mole of gas is heated d) Any quantity of gas is heated
- Q.9) A gas which obeys kinetic theory is perfectly
 a) Pure gas b) Real gas
 c) Perfect gas d) All of the above
- Q.10) Non- quasi -static process is
 a) Free expansion of gas b) Expansion of gas in a cylinder under constant pressure
 c) Rapid compression of gas in a cylinder d) Gradual compression of gas in a cylinder
- Q.11) A system consisting of one or more phase is called
 a) Isolated system b) Open system
 c) Non-uniform system d) Heterogeneous system
- Q.12) The Carnot cycle consist of two adiabatic process and
 a) Two isothermal processes b) Two constant pressure processes
 c) Two constant volume processes d) One constant pressure processes
- Q.13) The sequence of the process that eventually returns the working substance to its original state , is known as
 a) Event b) Thermodynamic cycle
 c) Thermodynamic property d) None of these

- Q.14) In a turbulent flow in a pipe
 a) Reynolds no. > 1000
 b) Fluid particles flow in a straight line
 c) Head loss varies linearly with flow rate
 d) Shear stress varies linearly with radius
- Q.15) Steady flow occurs when
 a) Pressure does not change across the flow
 b) Velocity does not change
 c) Conditions change gradually with time
 d) Conditions do not change with time at any point
- Q.16) Control Volume refers to
 a) specified mass
 b) fixed region in space
 c) closed system
 d) none of the above
- Q.17) Reynolds number for the pipe flow is given as
 a) vD/ν
 b) $vD\mu/\delta$
 c) $vD\rho/\mu$
 d) vD/μ
- Q.18) For a closed system difference between the heat added to the system and work done by gas, is equal to change in
 a) enthalpy
 b) entropy
 c) internal energy
 d) temperature
- Q.19) The convergence of which of the method is sensitive to starting value?
 a) false position
 b) Gauss – Siedel method
 c) Newton – Raphson Method
 d) All of these
- Q.20) In a strained body, normal stress on two mutually perpendicular planes are σ_x and σ_y (both alike) accompanied by a shear stress τ_{xy} . One of the principal stresses will be zero, only if
 a) $\tau_{xy} = (\sigma_x \times \sigma_y) / 2$
 b) $\tau_{xy} = (\sigma_x \times \sigma_y)$
 c) $\tau_{xy} = \sqrt{(\sigma_x \times \sigma_y)}$
 d) $\tau_{xy} = \sqrt{(\sigma_x^2 \times \sigma_y^2)}$
- Q.21) Which amongst the following substance, is most elastic
 a) Brass
 b) Aluminium
 c) Rubber
 d) Steel
- Q.22) For a thin cylinder, the ratio of thickness to internal diameter is of the order of
 a) 1/10
 b) 1/20
 c) 1/30
 d) 1/40
- Q.23) The deformation per unit length in the direction of load is called
 a) Lateral strain
 b) Shear strain
 c) Linear or longitudinal strain
 d) Volumetric strain
- Q.24) The shape of the bending moment diagrams for a cantilever beam carrying a uniformly distributed load is
 a) A straight line
 b) A hyperbola
 c) An ellipse
 d) A parabola
- Q.25) In a reversible isothermal process undergone by an ideal gas
 a) Heat transfer is zero
 b) Change in internal energy is zero
 c) Work done is zero
 d) Heat transfer is positive and work done is zero.
- Q.26) તાજમહેલ ક્યાં આવેલો છે.
 a) અલ્હાબાદ
 b) આગ્રા
 c) અજમેર
 d) જયપુર

Q.27) ભારતના સૌપ્રથમ અવકાશયાત્રી કોણ છે.

- a) રાજેશ શર્મા
b) રોકેશ શર્મા
c) રાજેશ વર્મા
d) રોકેશ વર્મા

Q.28) ભારતની સૌથી મોટી હોસ્પિટલ કઈ છે.

- a) શાલ હોસ્પિટલ
b) સિવીલ હોસ્પિટલ, અમદાવાદ
c) લોહિયા હોસ્પિટલ
d) AIIMS હોસ્પિટલ, દિલ્હી

Q.29) મુંબઈમાં આવેલું વિક્ટોરીયા ટર્મિનસ રેલ્વે સ્ટેશન હવે કયા નામે ઓળખાય છે.

- a) મરાઠા ટર્મિનસ
b) રાણા પ્રતાપસિંહ ટર્મિનસ
c) છત્રપતિ શિવાજી ટર્મિનસ
d) વિરાંગના ટર્મિનસ

Q.30) દીને ઈલાહી ધર્મની સ્થાપના કોણે કરી?

- a) બાબર
b) ઔરંગઝેબ
c) સમ્રાટ અકબર
d) બિરબલ

Q.31) મુંબઈ કેટલા ટાપુઓનો સમુહ છે.

- a) નવ
b) પાંચ
c) આઠ
d) સાત

Q.32) સરહદના ગાંધી તરીકે કોણ ઓળખાય છે?

- a) મોહનદાસ કરમચંદ ગાંધી
b) ખાન અબ્દુલ ગફારખાન
c) ગુલાબનબી આઝાદ
d) મોહમંદઅલી ઝીણા

Q.33) સંધિ છુટી પાડો - સપ્તર્ષિ

- a) સપ્ત + ઋષિ
b) સપ્ત + ઋષી
c) સપ્ત + અઋષી
d) સપ્ત + અઋષિ

Q.34) શબ્દ સમુહ માટે એક શબ્દ આપો "પહેલા કદી ન બન્યું હોય તેવું"

- a) અજાયબ
b) બેનમૂન
c) અભૂતપૂર્વ
d) અગણિત

Q.35) સંધિ જોડો - પ્રતિ + સ્થિત

- a) પ્રતીષ્ઠિત
b) પ્રતિષ્ઠિત
c) પ્રતીષ્ઠિત
d) પ્રતીષ્ઠિત

Q.36) સાહિત્યના ક્ષેત્રમાં ભારતમાં સૌથી ઉચ્ચ એવોર્ડ કયો છે.

- a) શક્તિપીઠ
b) વિદ્યાપીઠ
c) જ્ઞાનપીઠ
d) તેજપીઠ

- Q.37) વિશેષણ બનાવો - ધાર્મિકતા
 a) અધાર્મિક b) ધાર્મિક
 c) ધાર્મિક d) અતિ ધાર્મિક
- Q.38) વિરુદ્ધાર્થી શબ્દ આપો - “અનુજ”
 a) પ્રથમ b) પુર્વજ
 c) પુર્વિકા d) પૂરોગામી
- Q.39) Traffic _____ by the cops now.
 a) controlled b) is controlling
 c) is being controlled d) is controlled
- Q.40) Meena did not play so _____ as Sita did.
 a) good b) well
 c) better d) best
- Q.41) An apple was _____ by Geeta.
 a) eaten b) eat
 c) eats d) ate
- Q.42) Everyone _____ to sit quietly in the class.
 a) has b) is
 c) have d) are
- Q.43) સાચી જોડણી લખો - “ગીરીશ”
 a) ગિરિશ b) ગિરિસ
 c) ગીરિસ d) ગિરીશ
- Q.44) _____ I ask from where you have purchase these plants?
 a) can b) could
 c) may d) shall
- Q.45) ગુજરાતના કયા નાણાપ્રધાને સૌથી વધુ વખત બજેટ રજુ કર્યુ છે.?.
 a) સનત મહેતા b) વજુભાઈ વાળા
 c) નરહરિ અમીન્ d) અરવિંદ સંઘવી
- Q.46) ભાવ વાચક નામ બનાવો - નાનું
 a) નાનમ b) નાનપણ
 c) જરિક d) નાનું- મોટું
- Q.47) નીચેનામાંથી કયો કેન્દ્રશાસિત પ્રદેશ નથી.
 a) દીવ b) ગોવા
 c) દમણ d) લક્ષદ્વિપ
- Q.48) એક પ્રશ્ન વાક્ય ઓળખો.
 a) તમે આવ્યા છો b) ગમ્મત સાથે મજાક કરવી.
 c) કોણ ક્યારે આવશે d) તમે આ શુ માંડ્યુ છે

- Q.49) ભારતિય ચલચિત્રના પિતામહ કોને ગણવામાં આવે છે.
- a) અશોકકુમાર
b) અમિતાભ બચ્ચન
c) દાદાસાહેબ ફાલકે
d) દિલીપકુમાર
- Q.50) વિરૂધાર્થી શબ્દ આપો - “વ્યય”
- a) નૂકશાન
b) નકામુ
c) બચત
d) કંજૂસાઈ
- Q.51) The function of modulation is to
- a) Multiply a number of signals
b) Transmit information over long distance
c) Reduce noise
d) Reduce the bandwidth requirement
- Q.52) Vacuum tubes utilise following method of electron emission
- a) Mechanical
b) Magnetic field
c) Electric field
d) Thermionic
- Q.53) Which of the following amplifier has largest bandwidth
- a) RC coupled amplifier
b) Transformer coupled amplifier
c) Directed coupled amplifier
d) Differential amplifier
- Q.54) The direction of movement of molecules in a solid is
- a) Cyclic
b) Helical
c) Circular
d) Back and forth like tiny pendulum
- Q.55) Which of the following is a semiconductor
- a) Carbon
b) Molybdenum
c) Magnesium
d) Germanium
- Q.56) The velocity vector in SHM with respect to displacement vector
- a) Is in phase
b) Leads by 90 degrees
c) Lags by 90 degrees
d) Leads by 180 degrees
- Q.57) A parallel AC circuit in resonance will
- a) Have high impedance
b) Generate maximum noise
c) Generate maximum heat
d) Generate maximum power
- Q.58) Pick the odd one out
- a) stiffness
b) resilience
c) endurance limit
d) elastic strength
- Q.59) The percentage elongation of material as obtained from static tension test depends upon the
- a) diameter of test specimen
b) gauge length of the specimen
c) nature of end grips of the testing machine
d) geometry of the test specimen
- Q.60) The sum of the frequencies prior to particular class is called
- a) mean
b) mode
c) median
d) cumulative frequency
- Q.61) Toughness of the material signifies
- a) strength
b) softening
c) brittleness
d) fatigue resistance
- Q.62) Ionic reactions generally occurs in
- a) Gas phase
b) Liquid phase
c) Non-polar solvents
d) Solution in polar solvents

- Q.63) The moment of inertia of a triangle of base b and altitude h with respect to centroidal axis parallel to its base would be
- a) $bh^3/4$ b) $bh^3/18$
c) $bh^3/12$ d) $bh^3/36$
- Q.64) A passenger train takes 2 hr less for a journey of 300 km if its speed is increased by 5 km/hr over its usual speed. What is then the usual speed?
- a) 15 km/hr b) 29 km/hr
c) 25 km/hr d) 30 km/hr
- Q.65) Which of the following pairs of con- current forces cannot have the resultant of 4 N?
- a) 2N and 2N b) 2N and 4 N
c) 2N and 6 N d) 2N and 8 N
- Q.66) When a body executes simple harmonic motion, there is always a constant ratio between the displacement of mass and its
- a) frequency b) velocity
c) time period d) acceleration
- Q.67) Newton's second law of motion connects
- a) change of momentum and velocity b) momentum and acceleration
c) momentum and rate of change of force d) rate of change of force and external momentum
- Q.68) The rotational analogue of force in linear motion is
- a) couple b) torque
c) moment of momentum d) moment of inertia
- Q.69) Which of the following physical quantities is not a vector?
- a) mass b) momentum
c) impulse d) acceleration
- Q.70) Cathode rays have particle nature, is proved by the fact that they
- a) Produce fluorescence b) Travel in straight line
c) Gets deflected by electric and magnetic fields d) Carry current
- Q.71) Loudness of sound is a function of
- a) Frequency b) Amplitude
c) Pitch d) Ripple factor
- Q.72) Which of the following is a bigger quantum of pressure
- a) 1 Kg / cm^2 b) 1 inch of mercury
c) 1 m of water column d) 1 Kg / mm^2
- Q.73) The passage of current in an electrolyte is due to the movement of
- a) Electrons b) Particles
c) Molecules d) Ions
- Q.74) Powder clings to skin because of following property
- a) Adhesion b) Cohesion
c) Surface tension d) Capillary action
- Q.75) Select the heterogeneous system
- a) Mixture of gases in atmosphere b) Medium inside a cooker
c) Mixture of ice and water d) Mixture of ice, water and steam

- Q.76) The system of equations $a_1x + a_2y = 0$
 $b_1x + b_2y = 0$
 where a_1, b_1, a_2, b_2 are real nos. has a non-trivial solution if
 a) $a_1b_1 = a_2b_2$ b) $a_1b_2 = b_1a_2$
 c) $a_1a_2 = b_1b_2$ d) none of these
- Q.77) If A and B are non singular matrices of same order, then $(AB)^{-1}$ is equal to
 a) $A^{-1}B^{-1}$ b) $B^{-1}A^{-1}$
 c) AB^{-1} d) AB
- Q.78) The function $F(x) = 3x(x-2)$ has a
 a) minimum at $x = 1$ b) maximum at $x = 1$
 c) minimum at $x = 2$ d) maximum at $x = 2$
- Q.79) A sine bar is used to measure
 a) Gear profiles b) Internal tapers
 c) External tapers d) All of above
- Q.80) A card is taken out of a pack of 52 cards numbered from 2 to 53. The probability that the number on the card is prime number less than 20 is
 a) $1/13$ b) $2/13$
 c) $3/13$ d) $4/13$
- Q.81) Planer gauge is used for
 a) Testing the flatness of the surface b) Adding to utility of measurements on surface plate
 c) Angular measurement d) None of these
- Q.82) A man alternately tosses a coin and throws a dice, beginning with a coin. Then the probability that he will get a head before he gets a 5 or 6 on dice is
 a) $1/4$ b) $3/4$
 c) $4/5$ d) $4/7$
- Q.83) Which of the following inductors is suitable only for direct current
 a) Permanent magnet b) Elector dynamic
 c) Moving iron d) Hot wire
- Q.84) The Wheatstone bridge is used to measure
 a) Low value of current b) High value of current
 c) Resistance value d) Low value of voltage
- Q.85) The maximum amount by which the result differs from the true value is called
 a) Correction b) Discrepancy
 c) Error d) accuracy
- Q.86) The material used for fuse must have
 a) Low melting point and low specific resistance b) Low melting point and high specific resistance
 c) High melting point and low specific resistance d) Low melting point with any specific resistance
- Q.87) Which of the following instrument is most accurate
 a) Vertical caliper b) Manometric screw gauge
 c) Optical projector d) Slip gauges
- Q.88) The maximum temperature permitted for class A insulation is
 a) 180 C b) 105 C
 c) 120 C d) 155 C

- Q.89) The following motor is preferred for the locomotive motor drives
a) AC series motor
b) Induction motor
c) DC series motor
d) Single phase motor
- Q.90) A series motor at no load develops
a) 0 speed
b) Average speed
c) Rated speed
d) Infinite speed
- Q.91) The torque of DC series motor with increase in speed
a) Increases gradually
b) Decrease linearly
c) First decreases rapidly and then slowly
d) Remains constant
- Q.92) The cells are connected in series to
a) Increase the current output
b) Decrease the internal resistance
c) Increase the voltage output
d) Increase the power rating
- Q.93) Which of the following motor has high starting torque
a) AC motor
b) Induction motor
c) Synchronous motor
d) DC series motor
- Q.94) Non Conductors whose polarisation is caused by an electric field are known as
a) Dielectric
b) Super conductors
c) Semi-conductors
d) Insulators
- Q.95) The number of slip gauge in a set are
a) 87
b) 45
c) 103
d) All above are available
- Q.96) A balloon lifting in air follows the
a) Law of gravitation
b) Archimedes principle
c) Principle of buoyancy
d) All of above
- Q.97) Accuracy
a) repeatability of measuring process
b) error of judgment in recording an observation
c) the least resolution of an instrument
d) agreement of the result of measurement of true value of the measured quantity
- Q.98) The purpose of ratchet screw in micrometer screw gauge is
a) To lock a dimension
b) To impart blow motion
c) To maintain sufficient and uniform measuring pressure
d) To allow zero adjustment
- Q.99) Surface roughness drawings are represented by
a) triangle
b) circle
c) square
d) rectangles
- Q.100) Optical flats are made up of
a) Quartz
b) Glass
c) Plastic
d) Silicon

- Q.1) ભાવ વાચક નામ બનાવો - નાનું
- a) નાનમ b) નાનપણ
c) જરિક d) નાનું- મોટું
- Q.2) નીચેનામાંથી કયો કેન્દ્રશાસિત પ્રદેશ નથી.
- a) દીવ b) ગોવા
c) દમણ d) લક્ષદ્વિપ
- Q.3) એક પ્રશ્ન વાક્ય ઓળખો
- a) તમે આવ્યા છો b) ગમ્મત સાથે મજાક કરવી.
c) કોણ ક્યારે આવશે d) તમે આ શુ માંડ્યુ છે
- Q.4) ભારતિય ચલચિત્રના પિતામહ કોને ગણવામાં આવે છે.
- a) અશોકકુમાર b) અમિતાભ બચ્ચન
c) દાદાસાહેબ ફાળકે d) દિલીપકુમાર
- Q.5) વિરૂધાર્થી શબ્દ આપો - “વ્યય”
- a) નૂકશાન b) નકામુ
c) બચત d) કંજૂસાઈ
- Q.6) ગુજરાતના કયા નાણાપ્રધાને સૌથી વધુ વખત બજેટ રજુ કર્યું છે.?
- a) સનત મહેતા b) વજુભાઈ વાળા
c) નરહરિ અમીન્ d) અરવિંદ સંઘવી
- Q.7) Meena did not play so _____ as Sita did.
- a) good b) well
c) better d) best
- Q.8) An apple was _____ by Geeta.
- a) eaten b) eat
c) eats d) ate
- Q.9) Everyone _____ to sit quietly in the class.
- a) has b) is
c) have d) are
- Q.10) સારી જોડણી લખો - “ગીરીશ”
- a) ગિરિશ b) ગિરિસ
c) ગીરિસ d) ગીરીશ
- Q.11) _____ I ask from where you have purchase these plants?
- a) can b) could
c) may d) shall
- Q.12) Traffic _____ by the cops now.
- a) controlled b) is controlling
c) is being controlled d) is controlled

- Q.13) ભારતના સૌપ્રથમ અવકાશયાત્રી કોણ છે.
- a) રાજેશ શર્મા
b) રોકેશ શર્મા
c) રાજેશ વર્મા
d) રોકેશ વર્મા
- Q.14) ભારતની સૌથી મોટી હોસ્પિટલ કઈ છે.
- a) શાલ હોસ્પિટલ
b) સિવીલ હોસ્પિટલ, અમદાવાદ
c) લોહિયા હોસ્પિટલ
d) AIIMS હોસ્પિટલ, દિલ્હી
- Q.15) મુંબઈમાં આવેલું વિક્ટોરીયા ટર્મિનસ રેલ્વે સ્ટેશન હવે કયા નામે ઓળખાય છે.
- a) મરાઠા ટર્મિનસ
b) રાણા પ્રતાપસિંહ ટર્મિનસ
c) ઇતરપતિ શિવાજી ટર્મિનસ
d) વિરાંગના ટર્મિનસ
- Q.16) દીને ઈલાહી ધર્મની સ્થાપના કોણે કરી?
- a) બાબર
b) ઔરંગઝેબ
c) સમ્રાટ અકબર
d) બિરબલ
- Q.17) મુંબઈ કેટલા ટાપુઓનો સમુહ છે.
- a) નવ
b) પાંચ
c) આઠ
d) સાત
- Q.18) તાજમહેલ ક્યાં આવેલો છે.
- a) અલ્હાબાદ
b) આગ્રા
c) અજમેર
d) જયપુર
- Q.19) સરહદના ગાંધી તરીકે કોણ ઓળખાય છે?
- a) મોહનદાસ કરમચંદ ગાંધી
b) ખાન અબ્દુલ ગફારખાન
c) ગુલાબનબી આઝાદ
d) મોહમંદઅલી ઝીણા
- Q.20) શબ્દ સમુહ માટે એક શબ્દ આપો. “પહેલા કદી ન બન્યું હોય તેવું”
- a) અજાયબ
b) બેનમૂન
c) અભૂતપૂર્વ
d) અગણિત
- Q.21) સંધિ જોડો - પ્રતિ + સ્થિત
- a) પ્રતીષ્ઠિત
b) પ્રતિષ્ઠિત
c) પ્રતીષ્ઠિત
d) પ્રતીષ્ઠિત
- Q.22) સાહિત્યના ક્ષેત્રમાં ભારતમાં સૌથી ઉચ્ચ એવોર્ડ કયો છે.
- a) શકિતપીઠ
b) વિદ્યાપીઠ
c) જ્ઞાનપીઠ
d) તેજપીઠ
- Q.23) વિશેષણ બનાવો - ધાર્મિકતા
- a) અધાર્મિક
b) ધાર્મીક
c) ધાર્મિક
d) અતિ ધાર્મીક

- Q.24) विरुधार्थी शब्द आपो - “अनुज”
 a) प्रथम
 b) पुर्वज
 c) पुर्विका
 d) पूरोगामी
- Q.25) संघि छुटी पाडो - सप्तर्षि
 a) सप्त + ऋषि
 b) सप्त + ऋषी
 c) सप्त + अरुषी
 d) सप्त + अरुषि
- Q.26) Loudness of sound is a function of
 a) Frequency
 b) Amplitude
 c) Pitch
 d) Ripple factor
- Q.27) Which of the following is a bigger quantum of pressure
 a) 1 Kg / cm²
 b) 1 inch of mercury
 c) 1 m of water column
 d) 1 Kg / mm²
- Q.28) The passage of current in an electrolyte is due to the movement of
 a) Electrons
 b) Particles
 c) Molecules
 d) Ions
- Q.29) Powder clings to skin because of following property
 a) Adhesion
 b) Cohesion
 c) Surface tension
 d) Capillary action
- Q.30) Select the heterogeneous system
 a) Mixture of gases in atmosphere
 b) Medium inside a cooker
 c) Mixture of ice and water
 d) Mixture of ice, water and steam
- Q.31) Cathode rays have particle nature , is proved by the fact that they
 a) Produce fluorescence
 b) Travel in straight line
 c) Gets deflected by electric and magnetic fields
 d) Carry current
- Q.32) Which of the following pairs of con- current forces cannot have the resultant of 4 N?
 a) 2N and 2N
 b) 2N and 4 N
 c) 2N and 6 N
 d) 2N and 8 N
- Q.33) When a body executes simple harmonic motion, there is always a constant ratio between the displacement of mass and its
 a) frequency
 b) velocity
 c) time period
 d) acceleration
- Q.34) Newton's second law of motion connects
 a) change of momentum and velocity
 b) momentum and acceleration
 c) momentum and rate of change of force
 d) rate of change of force and external momentum
- Q.35) The rotational analogue of force in linear motion is
 a) couple
 b) torque
 c) moment of momentum
 d) moment of inertia
- Q.36) Which of the following physical quantities is not a vector?
 a) mass
 b) momentum
 c) impulse
 d) acceleration

- Q.37) A passenger train takes 2 hr less for a journey of 300 km if its speed is increased by 5 km/hr over its usual speed. What is then the usual speed?
 a) 15 km/hr
 b) 29 km/hr
 c) 25 km/hr
 d) 30 km/hr
- Q.38) Vacuum tubes utilise following method of electron emission
 a) Mechanical
 b) Magnetic field
 c) Electric field
 d) Thermionic
- Q.39) Which of the following amplifier has largest bandwidth
 a) RC coupled amplifier
 b) Transformer coupled amplifier
 c) Directed coupled amplifier
 d) Differential amplifier
- Q.40) The direction of movement of molecules in a solid is
 a) Cyclic
 b) Helical
 c) Circular
 d) Back and forth like tiny pendulum
- Q.41) Which of the following is a semiconductor
 a) Carbon
 b) Molybdenum
 c) Magnesium
 d) Germanium
- Q.42) The velocity vector in SHM with respect to displacement vector
 a) Is in phase
 b) Leads by 90 degrees
 c) Lags by 90 degrees
 d) Leads by 180 degrees
- Q.43) The function of modulation is to
 a) Multiply a number of signals
 b) Transmit information over long distance
 c) Reduce noise
 d) Reduce the bandwidth requirement
- Q.44) A parallel AC circuit in resonance will
 a) Have high impedance
 b) Generate maximum noise
 c) Generate maximum heat
 d) Generate maximum power
- Q.45) The percentage elongation of material as obtained from static tension test depends upon the
 a) diameter of test specimen
 b) gauge length of the specimen
 c) nature of end grips of the testing machine
 d) geometry of the test specimen
- Q.46) The sum of the frequencies prior to particular class is called
 a) mean
 b) mode
 c) median
 d) cumulative frequency
- Q.47) Toughness of the material signifies
 a) strength
 b) softening
 c) brittleness
 d) fatigue resistance
- Q.48) Ionic reactions generally occurs in
 a) Gas phase
 b) Liquid phase
 c) Non-polar solvents
 d) Solution in polar solvents
- Q.49) The moment of inertia of a triangle of base b and altitude h with respect to centroidal axis parallel to its base would be
 a) $bh^3/4$
 b) $bh^3/18$
 c) $bh^3/12$
 d) $bh^3/36$
- Q.50) Pick the odd one out
 a) stiffness
 b) resilience
 c) endurance limit
 d) elastic strength
- Q.51) A balloon lifting in air follows the
 a) Law of gravitation
 b) Archimedes principle
 c) Principle of buoyancy
 d) All of above

- Q.52) Accuracy
- a) repeatability of measuring process
 - b) error of judgment in recording an observation
 - c) the least resolution of an instrument
 - d) agreement of the result of measurement of true value of the measured quantity
- Q.53) The purpose of ratchet screw in micrometer screw gauge is
- a) To lock a dimension
 - b) To impart blow motion
 - c) To maintain sufficient and uniform measuring pressure
 - d) To allow zero adjustment
- Q.54) Surface roughness drawings are represented by
- a) triangle
 - b) circle
 - c) square
 - d) rectangles
- Q.55) Optical flats are made up of
- a) Quartz
 - b) Glass
 - c) Plastic
 - d) Silicon
- Q.56) The number of slip gauge in a set are
- a) 87
 - b) 45
 - c) 103
 - d) All above are available
- Q.57) A series motor at no load develops
- a) 0 speed
 - b) Average speed
 - c) Rated speed
 - d) Infinite speed
- Q.58) The torque of DC series motor with increase in speed
- a) Increases gradually
 - b) Decrease linearly
 - c) First decreases rapidly and then slowly
 - d) Remains constant
- Q.59) The cells are connected in series to
- a) Increase the current output
 - b) Decrease the internal resistance
 - c) Increase the voltage output
 - d) Increase the power rating
- Q.60) Which of the following motor has high starting torque
- a) AC motor
 - b) Induction motor
 - c) Synchronous motor
 - d) DC series motor
- Q.61) Non Conductors whose polarisation is caused by an electric field are known as
- a) Dielectric
 - b) Super conductors
 - c) Semi-conductors
 - d) Insulators
- Q.62) The following motor is preferred for the locomotive motor drives
- a) AC series motor
 - b) Induction motor
 - c) DC series motor
 - d) Single phase motor
- Q.63) If A and B are non singular matrices of same order , then $(AB)^{-1}$ is equal to
- a) $A^{-1}B^{-1}$
 - b) $B^{-1}A^{-1}$
 - c) AB^{-1}
 - d) AB
- Q.64) The function $F(x) = 3x(x-2)$ has a
- a) minimum at $x = 1$
 - b) maximum at $x = 1$
 - c) minimum at $x = 2$
 - d) maximum at $x = 2$
- Q.65) A sine bar is used to measure
- a) Gear profiles
 - b) Internal tapers
 - c) External tapers
 - d) All of above
- Q.66) A card is taken out of a pack of 52 cards numbered from 2 to 53. The probability that the number on the card is prime number less than 20 is
- a) $1/13$
 - b) $2/13$
 - c) $3/13$
 - d) $4/13$

- Q.67) Planer gauge is used for
- Testing the flatness of the surface
 - Adding to utility of measurements on surface plate
 - Angular measurement
 - None of these
- Q.68) The system of equations $a_1x + a_2y = 0$
 $b_1x + b_2y = 0$
where a_1, b_1, a_2, b_2 are real nos. has a non-trivial solution if
- $a_1b_1 = a_2b_2$
 - $a_1b_2 = b_1a_2$
 - $a_1a_2 = b_1b_2$
 - none of these
- Q.69) A man alternately tosses a coin and throws a dice, beginning with a coin. Then the probability that he will get a head before he gets a 5 or 6 on dice is
- 1/4
 - 3/4
 - 4/5
 - 4/7
- Q.70) The Wheatstone bridge is used to measure
- Low value of current
 - High value of current
 - Resistance value
 - Low value of voltage
- Q.71) The maximum amount by which the result differs from the true value is called
- Correction
 - Discrepancy
 - Error
 - accuracy
- Q.72) The material used for fuse must have
- Low melting point and low specific resistance
 - Low melting point and high specific resistance
 - High melting point and low specific resistance
 - Low melting point with any specific resistance
- Q.73) Which of the following instrument is most accurate
- Vertical caliper
 - Manometric screw gauge
 - Optical projector
 - Slip gauges
- Q.74) The maximum temperature permitted for class A insulation is
- 180 C
 - 105 C
 - 120 C
 - 155 C
- Q.75) Which of the following inductors is suitable only for direct current
- Permanent magnet
 - Elector dynamic
 - Moving iron
 - Hot wire
- Q.76) Which amongst the following substance, is most elastic
- Brass
 - Aluminium
 - Rubber
 - Steel
- Q.77) For a thin cylinder, the ratio of thickness to internal diameter is of the order of
- 1/10
 - 1/20
 - 1/30
 - 1/40
- Q.78) The deformation per unit length in the direction of load is called
- Lateral strain
 - Shear strain
 - Linear or longitudinal strain
 - Volumetric strain
- Q.79) The shape of the bending moment diagrams for a cantilever beam carrying a uniformly distributed load is
- A straight line
 - A hyperbola
 - An ellipse
 - A parabola
- Q.80) In a reversible isothermal process undergone by an ideal gas
- Heat transfer is zero
 - Change in internal energy is zero
 - Work done is zero
 - Heat transfer is positive and work done is zero.

- Q.81) In a strained body, normal stress on two mutually perpendicular planes are σ_x and σ_y (both alike) accompanied by a shear stress τ_{xy} . One of the principal stresses will be zero, only if
- a) $\tau_{xy} = (\sigma_x \times \sigma_y) / 2$ b) $\tau_{xy} = (\sigma_x \times \sigma_y)$
 c) $\tau_{xy} = \sqrt{(\sigma_x \times \sigma_y)}$ d) $\tau_{xy} = \sqrt{(\sigma_x^2 \times \sigma_y^2)}$
- Q.82) Steady flow occurs when
- a) Pressure does not change across the flow b) Velocity does not change
 c) Conditions change gradually with time d) Conditions do not change with time at any point
- Q.83) Control Volume refers to
- a) specified mass b) fixed region ion space
 c) closed system d) none of the above
- Q.84) Reynolds number for the pipe flow is given as
- a) vD/v b) $vD\mu/\delta$
 c) $vD\rho/\mu$ d) vD/μ
- Q.85) For a closed system difference between the heat added to the system and work done by gas, is equal to change in
- a) enthalpy b) entropy
 c) internal energy d) temperature
- Q.86) The convergence of which of the method is sensitive to starting value?
- a) false position b) Gauss – Siedel method
 c) Newton – Raphson Method d) All of these
- Q.87) In a turbulent flow in a pipe
- a) Reynolds no. > 1000 b) Fluid particles flow in a straight line
 c) Head loss varies linearly with flow rate d) Shear stress varies linearly with radius
- Q.88) One _____ not smoke.
- a) shall b) might
 c) would d) should
- Q.89) Tina is not answering the phone. She _____ be out.
- a) will b) might
 c) shall d) would
- Q.90) Wake always occurs
- a) Before a separation point b) After a separation point
 c) Before and after a separation point d) None of these
- Q.91) I _____ paint well.
- a) could b) might
 c) can d) may
- Q.92) Process of diffusion of one liquid into other through a semi permeable membrane is called
- a) Viscosity b) Osmosis
 c) Surface tension d) Cohesion
- Q.93) If I won the lottery, I _____ afford to leave my job.
- a) might b) will
 c) shall d) should
- Q.94) I thought he _____ in office.
- a) might b) could
 c) can d) may

- Q.95) A gas which obeys kinetic theory is perfectly
- a) Pure gas
 - b) Real gas
 - c) Perfect gas
 - d) All of the above
- Q.96) Non- quasi –static process is
- a) Free expansion of gas
 - b) Expansion of gas in a cylinder under constant pressure
 - c) Rapid compression of gas in a cylinder
 - d) Gradual compression of gas in a cylinder
- Q.97) A system consisting of one or more phase is called
- a) Isolated system
 - b) Open system
 - c) Non-uniform system
 - d) Heterogeneous system
- Q.98) The Carnot cycle consist of two adiabatic process and
- a) Two isothermal processes
 - b) Two constant pressure processes
 - c) Two constant volume processes
 - d) One constant pressure processes
- Q.99) The sequence of the process that eventually returns the working substance to its original state , is known as
- a) Event
 - b) Thermodynamic cycle
 - c) Thermodynamic property
 - d) None of these
- Q.100) The difference between two specific heats of a gas is equal to universal gas constant , when
- a) 1 gm of gas is heated
 - b) 1 gm molecule of gas is heated
 - c) 1 mole of gas is heated
 - d) Any quantity of gas is heated

- Q.1) The maximum amount by which the result differs from the true value is called
 a) Correction
 b) Discrepancy
 c) Error
 d) accuracy
- Q.2) The material used for fuse must have
 a) Low melting point and low specific resistance
 b) Low melting point and high specific resistance
 c) High melting point and low specific resistance
 d) Low melting point with any specific resistance
- Q.3) Which of the following instrument is most accurate
 a) Vertical caliper
 b) Manometric screw gauge
 c) Optical projector
 d) Slip gauges
- Q.4) The maximum temperature permitted for class A insulation is
 a) 180 C
 b) 105 C
 c) 120 C
 d) 155 C
- Q.5) Which of the following inductors is suitable only for direct current
 a) Permanent magnet
 b) Elector dynamic
 c) Moving iron
 d) Hot wire
- Q.6) The Wheatstone bridge is used to measure
 a) Low value of current
 b) High value of current
 c) Resistance value
 d) Low value of voltage
- Q.7) The function $F(x) = 3x(x-2)$ has a
 a) minimum at $x = 1$
 b) maximum at $x = 1$
 c) minimum at $x = 2$
 d) maximum at $x = 2$
- Q.8) A sine bar is used to measure
 a) Gear profiles
 b) Internal tapers
 c) External tapers
 d) All of above
- Q.9) A card is taken out of a pack of 52 cards numbered from 2 to 53. The probability that the number on the card is prime number less than 20 is
 a) $1/13$
 b) $2/13$
 c) $3/13$
 d) $4/13$
- Q.10) Planer gauge is used for
 a) Testing the flatness of the surface
 b) Adding to utility of measurements on surface plate
 c) Angular measurement
 d) None of these
- Q.11) The system of equations $a_1x + a_2y = 0$
 $b_1x + b_2y = 0$
 where a_1, b_1, a_2, b_2 are real nos. has a non-trivial solution if
 a) $a_1b_1 = a_2b_2$
 b) $a_1b_2 = b_1a_2$
 c) $a_1a_2 = b_1b_2$
 d) none of these
- Q.12) If A and B are non singular matrices of same order, then $(AB)^{-1}$ is equal to
 a) $A^{-1}B^{-1}$
 b) $B^{-1}A^{-1}$
 c) AB^{-1}
 d) AB
- Q.13) A man alternately tosses a coin and throws a dice, beginning with a coin. Then the probability that he will get a head before he gets a 5 or 6 on dice is
 a) $1/4$
 b) $3/4$
 c) $4/5$
 d) $4/7$

- Q.14) Accuracy
- a) repeatability of measuring process
 - b) error of judgment in recording an observation
 - c) the least resolution of an instrument
 - d) agreement of the result of measurement of true value of the measured quantity
- Q.15) The purpose of ratchet screw in micrometer screw gauge is
- a) To lock a dimension
 - b) To impart blow motion
 - c) To maintain sufficient and uniform measuring pressure
 - d) To allow zero adjustment
- Q.16) Surface roughness drawings are represented by
- a) triangle
 - b) circle
 - c) square
 - d) rectangles
- Q.17) Optical flats are made up of
- a) Quartz
 - b) Glass
 - c) Plastic
 - d) Silicon
- Q.18) The number of slip gauge in a set are
- a) 87
 - b) 45
 - c) 103
 - d) All above are available
- Q.19) A balloon lifting in air follows the
- a) Law of gravitation
 - b) Archimedes principle
 - c) Principle of buoyancy
 - d) All of above
- Q.20) The torque of DC series motor with increase in speed
- a) Increases gradually
 - b) Decrease linearly
 - c) First decreases rapidly and then slowly
 - d) Remains constant
- Q.21) The cells are connected in series to
- a) Increase the current output
 - b) Decrease the internal resistance
 - c) Increase the voltage output
 - d) Increase the power rating
- Q.22) Which of the following motor has high starting torque
- a) AC motor
 - b) Induction motor
 - c) Synchronous motor
 - d) DC series motor
- Q.23) Non Conductors whose polarisation is caused by an electric field are known as
- a) Dielectric
 - b) Super conductors
 - c) Semi-conductors
 - d) Insulators
- Q.24) The following motor is preferred for the locomotive motor drives
- a) AC series motor
 - b) Induction motor
 - c) DC series motor
 - d) Single phase motor
- Q.25) A series motor at no load develops
- a) 0 speed
 - b) Average speed
 - c) Rated speed
 - d) Infinite speed
- Q.26) Non- quasi –static process is
- a) Free expansion of gas
 - b) Expansion of gas in a cylinder under constant pressure
 - c) Rapid compression of gas in a cylinder
 - d) Gradual compression of gas in a cylinder
- Q.27) A system consisting of one or more phase is called
- a) Isolated system
 - b) Open system
 - c) Non-uniform system
 - d) Heterogeneous system

- Q.28) The Carnot cycle consist of two adiabatic process and
- a) Two isothermal processes
 - b) Two constant pressure processes
 - c) Two constant volume processes
 - d) One constant pressure processes
- Q.29) The sequence of the process that eventually returns the working substance to its original state , is known as
- a) Event
 - b) Thermodynamic cycle
 - c) Thermodynamic property
 - d) None of these
- Q.30) The difference between two specific heats of a gas is equal to universal gas constant , when
- a) 1 gm of gas is heated
 - b) 1 gm molecule of gas is heated
 - c) 1 mole of gas is heated
 - d) Any quantity of gas is heated
- Q.31) A gas which obeys kinetic theory is perfectly
- a) Pure gas
 - b) Real gas
 - c) Perfect gas
 - d) All of the above
- Q.32) Tina is not answering the phone. She _____ be out.
- a) will
 - b) might
 - c) shall
 - d) would
- Q.33) Wake always occurs
- a) Before a separation point
 - b) After a separation point
 - c) Before and after a separation point
 - d) None of these
- Q.34) I _____ paint well.
- a) could
 - b) might
 - c) can
 - d) may
- Q.35) Process of diffusion of one liquid into other through a semi permeable membrane is called
- a) Viscosity
 - b) Osmosis
 - c) Surface tension
 - d) Cohesion
- Q.36) If I won the lottery, I _____ afford to leave my job.
- a) might
 - b) will
 - c) shall
 - d) should
- Q.37) One _____ not smoke.
- a) shall
 - b) might
 - c) would
 - d) should
- Q.38) I thought he _____ in office.
- a) might
 - b) could
 - c) can
 - d) may
- Q.39) For a thin cylinder , the ratio of thickness to internal diameter is of the order of
- a) 1/10
 - b) 1/20
 - c) 1/30
 - d) 1/40
- Q.40) The deformation per unit length in the direction of load is called
- a) Lateral strain
 - b) Shear strain
 - c) Linear or longitudinal strain
 - d) Volumetric strain
- Q.41) The shape of the bending moment diagrams for a cantilever beam carrying a uniformly distributed load is
- a) A straight line
 - b) A hyperbola
 - c) An ellipse
 - d) A parabola
- Q.42) In a reversible isothermal process undergone by an ideal gas
- a) Heat transfer is zero
 - b) Change in internal energy is zero
 - c) Work done is zero
 - d) Heat transfer is positive and work done is zero.

- Q.43) In a strained body, normal stress on two mutually perpendicular planes are σ_x and σ_y (both alike) accompanied by a shear stress τ_{xy} . One of the principal stresses will be zero, only if
- a) $\tau_{xy} = (\sigma_x \times \sigma_y) / 2$ b) $\tau_{xy} = (\sigma_x \times \sigma_y)$
 c) $\tau_{xy} = \sqrt{(\sigma_x \times \sigma_y)}$ d) $\tau_{xy} = \sqrt{(\sigma_x^2 \times \sigma_y^2)}$
- Q.44) Which amongst the following substance, is most elastic
- a) Brass b) Aluminium
 c) Rubber d) Steel
- Q.45) Control Volume refers to
- a) specified mass b) fixed region ion space
 c) closed system d) none of the above
- Q.46) Reynolds number for the pipe flow is given as
- a) vD/v b) $vD\mu/\delta$
 c) $vD\rho/\mu$ d) vD/μ
- Q.47) For a closed system difference between the heat added to the system and work done by gas, is equal to change in
- a) enthalpy b) entropy
 c) internal energy d) temperature
- Q.48) The convergence of which of the method is sensitive to starting value?
- a) false position b) Gauss – Siedel method
 c) Newton – Raphson Method d) All of these
- Q.49) In a turbulent flow in a pipe
- a) Reynolds no. > 1000 b) Fluid particles flow in a straight line
 c) Head loss varies linearly with flow rate d) Shear stress varies linearly with radius
- Q.50) Steady flow occurs when
- a) Pressure does not change across the flow b) Velocity does not change
 c) Conditions change gradually with time d) Conditions do not change with time at any point
- Q.51) સંધિ જોડો - પ્રતિ + સ્થિત
- a) પ્રતીષ્ઠિત b) પ્રતિષ્ઠિત
 c) પ્રતીષ્ઠિત d) પ્રતીષ્ઠિત
- Q.52) સાહિત્યના ક્ષેત્રમાં ભારતમાં સૌથી ઉચ્ચ એવોર્ડ કયો છે.
- a) શક્તિપીઠ b) વિદ્યાપીઠ
 c) જ્ઞાનપીઠ d) તેજપીઠ
- Q.53) વિશેષણ બનાવો - ધાર્મિકતા
- a) અધાર્મિક b) ધાર્મીક
 c) ધાર્મિક d) અતિ ધાર્મીક
- Q.54) વિરૂધ્ધાર્થી શબ્દ આપો - “અનુજ”
- a) પ્રથમ b) પુર્વજ
 c) પુર્વિકા d) પૂરોગામી

- Q.55) સંધિ છુટી પાડો - સપ્તર્ષિ
- a) સપ્ત + ઋષિ
b) સપત + ઋષી
c) સપત + અઋષી
d) સપ્ત + અઋષિ
- Q.56) શબ્દ સમુહ માટે એક શબ્દ આપો - “પહેલા કદી ન બન્યુ હોય તેવું”
- a) અજાયબ
b) બેનમૂન
c) અભૂતપૂર્વ
d) અગણિત
- Q.57) ભારતની સૌથી મોટી હોસ્પિટલ કઈ છે.
- a) શાલ હોસ્પિટલ
b) સિવીલ હોસ્પિટલ, અમદાવાદ
c) લોહિયા હોસ્પિટલ
d) AIIMS હોસ્પિટલ, દિલ્હી
- Q.58) મુંબઈમાં આવેલું વિક્ટોરીયા ટર્મિનસ રેલ્વે સ્ટેશન હવે કયા નામે ઓળખાય છે.
- a) મરાઠા ટર્મિનસ
b) રાણા પ્રતાપસિંહ ટર્મિનસ
c) છત્રપતિ શિવાજી ટર્મિનસ
d) વિરાંગના ટર્મિનસ
- Q.59) દીને ઈલાહી ધર્મની સ્થાપના કોણે કરી?
- a) બાબર
b) ઔરંગઝેબ
c) સમ્રાટ અકબર
d) બિરબલ
- Q.60) મુંબઈ કેટલા ટાપુઓનો સમુહ છે.
- a) નવ
b) પાંચ
c) આઠ
d) સાત
- Q.61) તાજમહેલ ક્યાં આવેલો છે.
- a) અલ્હાબાદ
b) આગા
c) અજમેર
d) જયપુર
- Q.62) ભારતના સૌપ્રથમ અવકાશયાત્રી કોણ છે.
- a) રાજેશ શર્મા
b) રાકેશ શર્મા
c) રાજેશ વર્મા
d) રાકેશ વર્મા
- Q.63) સરહદના ગાંધી તરીકે કોણ ઓળખાય છે?
- a) મોહનદાસ કરમચંદ ગાંધી
b) ખાન અબ્દૂલ ગફારખાન
c) ગુલાબનબી આઝાદ
d) મોહમંદઅલી ઝીણા
- Q.64) નીચેનામાંથી કયો કેન્દ્રશાસિત પ્રદેશ નથી.
- a) દીવ
b) ગોવા
c) દમણ
d) લક્ષદ્વિપ
- Q.65) એક પ્રશ્ન વાક્ય ઓળખો
- a) તમે આવ્યા છો
b) ગમ્મત સાથે મજાક કરવી.
c) કોણ ક્યારે આવશે
d) તમે આ શુ માંડ્યુ છે

- Q.66) ભારતિય ચલચિત્રના પિતામહ કોને ગણવામાં આવે છે.
- a) અશોકકુમાર
b) અમિતાભ બચ્ચન
c) દાદાસાહેબ ફાલકે
d) દિલીપકુમાર
- Q.67) વિરુદ્ધાર્થી શબ્દ આપો - “વ્યય”
- a) નૂકશાન
b) નકામુ
c) બચત
d) કંજૂસાઈ
- Q.68) ગુજરાતના કયા નાણાપ્રધાને સૌથી વધુ વખત બજેટ રજુ કર્યું છે.?
- a) સનત મહેતા
b) વજુભાઈ વાળા
c) નરહરિ અમીન્
d) અરવિંદ સંઘવી
- Q.69) ભાવ વાચક નામ બનાવો - નાનું
- a) નાનમ
b) નાનપણ
c) જરિક
d) નાનું- મોટું
- Q.70) An apple was _____ by Geeta.
- a) eaten
b) eat
c) eats
d) ate
- Q.71) Everyone _____ to sit quietly in the class.
- a) has
b) is
c) have
d) are
- Q.72) સાચી જોડણી લખો - “ગીરીશ”
- a) ગિરિશ
b) ગિરિસ
c) ગીરિસ
d) ગિરીશ
- Q.73) _____ I ask from where you have purchase these plants?
- a) can
b) could
c) may
d) shall
- Q.74) Traffic _____ by the cops now.
- a) controlled
b) is controlling
c) is being controlled
d) is controlled
- Q.75) Meena did not play so _____ as Sita did.
- a) good
b) well
c) better
d) best
- Q.76) The sum of the frequencies prior to particular class is called
- a) mean
b) mode
c) median
d) cumulative frequency
- Q.77) Toughness of the material signifies
- a) strength
b) softening
c) brittleness
d) fatigue resistance
- Q.78) Ionic reactions generally occurs in
- a) Gas phase
b) Liquid phase
c) Non-polar solvents
d) Solution in polar solvents

- Q.79) The moment of inertia of a triangle of base b and altitude h with respect to centroidal axis parallel to its base would be
- $bh^3/4$
 - $bh^3/18$
 - $bh^3/12$
 - $bh^3/36$
- Q.80) Pick the odd one out
- stiffness
 - resilience
 - endurance limit
 - elastic strength
- Q.81) The percentage elongation of material as obtained from static tension test depends upon the
- diameter of test specimen
 - gauge length of the specimen
 - nature of end grips of the testing machine
 - geometry of the test specimen
- Q.82) Which of the following amplifier has largest bandwidth
- RC coupled amplifier
 - Transformer coupled amplifier
 - Directed coupled amplifier
 - Differential amplifier
- Q.83) The direction of movement of molecules in a solid is
- Cyclic
 - Helical
 - Circular
 - Back and forth like tiny pendulum
- Q.84) Which of the following is a semiconductor
- Carbon
 - Molybdenum
 - Magnesium
 - Germanium
- Q.85) The velocity vector in SHM with respect to displacement vector
- Is in phase
 - Leads by 90 degrees
 - Lags by 90 degrees
 - Leads by 180 degrees
- Q.86) The function of modulation is to
- Multiply a number of signals
 - Transmit information over long distance
 - Reduce noise
 - Reduce the bandwidth requirement
- Q.87) Vacuum tubes utilise following method of electron emission
- Mechanical
 - Magnetic field
 - Electric field
 - Thermionic
- Q.88) A parallel AC circuit in resonance will
- Have high impedance
 - Generate maximum noise
 - Generate maximum heat
 - Generate maximum power
- Q.89) Which of the following is a bigger quantum of pressure
- 1 Kg / cm^2
 - 1 inch of mercury
 - 1 m of water column
 - 1 Kg / mm^2
- Q.90) The passage of current in an electrolyte is due to the movement of
- Electrons
 - Particles
 - Molecules
 - Ions
- Q.91) Powder clings to skin because of following property
- Adhesion
 - Cohesion
 - Surface tension
 - Capillary action
- Q.92) Select the heterogeneous system
- Mixture of gases in atmosphere
 - Medium inside a cooker
 - Mixture of ice and water
 - Mixture of ice, water and steam
- Q.93) Cathode rays have particle nature, is proved by the fact that they
- Produce fluorescence
 - Travel in straight line
 - Gets deflected by electric and magnetic fields
 - Carry current

- Q.94) Loudness of sound is a function of
- a) Frequency
 - b) Amplitude
 - c) Pitch
 - d) Ripple factor
- Q.95) When a body executes simple harmonic motion, there is always a constant ratio between the displacement of mass and its
- a) frequency
 - b) velocity
 - c) time period
 - d) acceleration
- Q.96) Newton's second law of motion connects
- a) change of momentum and velocity
 - b) momentum and acceleration
 - c) momentum and rate of change of force
 - d) rate of change of force and external momentum
- Q.97) The rotational analogue of force in linear motion is
- a) couple
 - b) torque
 - c) moment of momentum
 - d) moment of inertia
- Q.98) Which of the following physical quantities is not a vector?
- a) mass
 - b) momentum
 - c) impulse
 - d) acceleration
- Q.99) A passenger train takes 2 hr less for a journey of 300 km if its speed is increased by 5 km/hr over its usual speed. What is then the usual speed?
- a) 15 km/hr
 - b) 29 km/hr
 - c) 25 km/hr
 - d) 30 km/hr
- Q.100) Which of the following pairs of con- current forces cannot have the resultant of 4 N?
- a) 2N and 2N
 - b) 2N and 4 N
 - c) 2N and 6 N
 - d) 2N and 8 N

Jr Answer Key

IC/JI

A		B		C		D	
Que_No	Group	Que_No	Group	Que_No	Group	Que_No	Group
1	a	1	a	1	b	1	d
2	d	2	d	2	b	2	b
3	d	3	b	3	d	3	c
4	c	4	b	4	c	4	b
5	d	5	c	5	c	5	a
6	b	6	b	6	b	6	c
7	d	7	a	7	b	7	a
8	a	8	b	8	a	8	c
9	b	9	b	9	a	9	b
10	c	10	a	10	d	10	b
11	d	11	d	11	c	11	b
12	d	12	a	12	c	12	b
13	d	13	b	13	b	13	b
14	d	14	d	14	b	14	d
15	b	15	d	15	c	15	c
16	c	16	b	16	c	16	a
17	a	17	c	17	d	17	a
18	a	18	c	18	b	18	d
19	b	19	a	19	b	19	b
20	d	20	c	20	c	20	c
21	d	21	d	21	b	21	c
22	b	22	b	22	c	22	d
23	c	23	c	23	c	23	a
24	d	24	d	24	b	24	c
25	a	25	d	25	a	25	d
26	a	26	b	26	b	26	a
27	c	27	b	27	a	27	d
28	d	28	b	28	d	28	a
29	c	29	c	29	a	29	b
30	c	30	c	30	d	30	b
31	d	31	d	31	c	31	b
32	b	32	b	32	d	32	b
33	b	33	a	33	d	33	b
34	c	34	c	34	d	34	c
35	a	35	b	35	b	35	b
36	d	36	c	36	a	36	a
37	c	37	c	37	c	37	d
38	a	38	b	38	d	38	a
39	c	39	c	39	c	39	b
40	b	40	b	40	d	40	c
41	d	41	a	41	d	41	d
42	d	42	a	42	b	42	d
43	a	43	d	43	b	43	c
44	b	44	c	44	a	44	d
45	c	45	b	45	b	45	b
46	b	46	b	46	d	46	c
47	b	47	b	47	a	47	c
48	a	48	d	48	d	48	a
49	b	49	c	49	d	49	d
50	b	50	c	50	c	50	d
51	a	51	b	51	b	51	b

Jr Answer Key

A		B		C		D	
Que_No	Group	Que_No	Group	Que_No	Group	Que_No	Group
52	c	52	d	52	d	52	c
53	d	53	c	53	c	53	c
54	d	54	d	54	a	54	b
55	b	55	d	55	a	55	a
56	c	56	b	56	d	56	c
57	b	57	a	57	d	57	b
58	d	58	c	58	c	58	c
59	b	59	b	59	c	59	c
60	b	60	d	60	d	60	d
61	a	61	a	61	a	61	b
62	a	62	d	62	c	62	b
63	d	63	d	63	b	63	b
64	c	64	c	64	a	64	b
65	d	65	d	65	c	65	d
66	c	66	d	66	b	66	c
67	b	67	d	67	b	67	c
68	d	68	b	68	b	68	b
69	b	69	a	69	b	69	b
70	b	70	c	70	c	70	a
71	d	71	b	71	d	71	a
72	a	72	a	72	b	72	d
73	b	73	d	73	c	73	c
74	c	74	a	74	b	74	c
75	a	75	d	75	a	75	b
76	c	76	b	76	d	76	d
77	a	77	b	77	b	77	a
78	b	78	a	78	c	78	d
79	c	79	c	79	d	79	d
80	a	80	b	80	d	80	c
81	d	81	b	81	c	81	b
82	b	82	b	82	d	82	c
83	c	83	a	83	b	83	d
84	c	84	c	84	c	84	d
85	a	85	d	85	c	85	b
86	b	86	b	86	a	86	b
87	c	87	c	87	d	87	d
88	c	88	b	88	d	88	a
89	d	89	c	89	b	89	a
90	b	90	d	90	b	90	d
91	b	91	c	91	c	91	a
92	b	92	c	92	b	92	d
93	c	93	d	93	a	93	c
94	d	94	a	94	a	94	b
95	c	95	d	95	b	95	d
96	b	96	b	96	a	96	d
97	b	97	d	97	d	97	b
98	b	98	c	98	a	98	a
99	c	99	a	99	b	99	c
100	b	100	a	100	b	100	d

IC/JI