
# Padasalai's Telegram Groups!

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## *11th STANDARD PHYSICS INSIDE ONE MARK FOR ALL LESSON*

## I.CHOOSE THE CORRECT ANSWER.

**1. Which of the following pairs does not have same dimension?**
a) Moment of force and moment of Inertia b) Work and torque
c) Impulse and Momentum d) Angular momentum and Plank's Constant

**2. The shift in the position of an object when viewed with two eyes, keeping one eye closed at a time is known as—?** a) Basis b) Parallax c) Fundamental d) Pendulum

**3. The area under the force-time graph is ----?**
a) Momentum b) Force c) Work done d) Impulse

**4. In a levelled circular road skidding mainly depends on**
a) Coefficient of static friction b) Acceleration c) Coefficient of kinetic friction d) None

**5. The technique used to observe distant points of the universe by------?**
a) Diffraction b) Interference c) Reflection d) Total internal reflection

**6. Which of the following force is pseudo force?**
a) Viscous force b) Surface tension c) Centrifugal force d) Gravitational force

**7. The process in which heat transfer is by actual movement of molecules in fluids such as liquids and gases called** --------? a) Thermal conductivity b) Convection c) Conduction d) Radiation

**8. The dimension for radius of gyration------?**
a) L b) $L^2$ c) $L^{-2}$ d) $L^{-1}$

**9. The vector product of two non-zero vectors will be minimum.**
a) $\theta = 0$ b) $\theta = 0^0$ or $180^0$ c) $\theta = 180^0$ d) None

**10. The displacement of an object can be -------- than the distance travelled.**
a) Equal b) Less c) Greater d) Equal or Less

**11. Fractional error is also called --------?**
a) Relative Error b) Absolute Error c) Percentage Error d) Mean Absolute Error

**12. Two vectors which are perpendicular to each other are called-------- vector?**
a) Orthogonal b) Anti- parallel c) Unit d) Collinear

**13. A bullet fired vertically upwards fall at the same place after some time. What is the displacement of the bullet?**
a) Zero b) Infinite c) One d) None

**14. Friction can be reduced by --------?**
a) Polishing b) Lubricating c) Using Ball bearing d) All the above

**15. Random errors are sometimes called -------?**
a) Chance error b) Charge error c) Change error d) All the above

**16. What is the shortest distance measured indirectly so far?**
a) Radius of proton b) Radius of earth c) Radius of pluto's orbit d) Thickness of paper

**17. When the object moves it with constant velocity then the force-----?**
a) Zero b) One c) Infinite d) None

**18. If very large force acts on an object for a very short duration then the force is called ----?**
a) Newtonian force b) Impulsive force c) Concurrent force d) Coplanar force

**19. Which energy stored in the spring does not depend on the mass that attached to the spring?**
a) Kinetic b) Elastic c) Potential d) All the above

**20. If the object is at rest the magnitude of normal force is exactly is equal to the-----?**
a) Magnitude of force b) Magnitude of gravity c) Magnitude of object d) None

**21. Lami's theorem is applicable only when the system of force-----?**
a) Same plane b) Different plane c) Equilibrium d) None

**22. The range of the projectile depends ----?**
a) Velocity of projection b) The angle of projection c) Acceleration due to gravity d) all the above

**23. In sliding the resultant velocity of a point of contact acts along----?**
a) Forward direction b) Backward direction c) either (a) or (b) d) Tangential acceleration

**24. The coefficient of static friction is equal to tangent of the -----?**
a) Angle of repose b) Angle of friction c) Angle of inclined d) all the above

**25. The acceleration of the sliding object in an inclined plane ----?**
a) mgcosθ b) mgsinθ c) gcosθ d) gsinθ

**26. The static force does not dependent upon----**
a) The area of contact b) Normal force c) The magnitude of applied force d) None

**27. The force which opposes the initiation of motion of an object on the surface-----?**
a) Static friction b) Kinetic friction c) Friction d) Zero

**28. The moment of external applied force about a point or axis of rotation is known as----?**
a) Spinning b) Torque c) Angular momentum d) Drive force

**29. The coefficient of restitution for an elastic collision------?**
a) e = 0 b) e = 1 c) e < 1 d) e > 1

**30. The work done by the Non- conservative force is ------ of the path.**
a) Dependent b) Independent c) Both (a) and (b) d) either (a) or (b)

**31. Which number of approaches in studying in physics?**
a) 2 b) 3 c) 4 d)5

**32. The word physics is derived from ------ word .**
a) Latin b) Greek c) Arabian d) Italian

**33. The name of physics was introduction by -------.**
a) Galileo b) Newton c) Aristotle d) None

**34. Which of the following is the fundamental quantity?**
a) Area b)Mass c)Density d)volume

**35. The ratio of the dimension of plank constant and that of moment of inertia is the dimension of-------.**
a) Time b) Frequency c) Velocity d) Angular momentum

**36. 1minute is = -------- rad.**
a) $1.745x10^{-2}$ b) $4.85x10^{-6}$ c) $1.91x10^{-4}$ d) $2.91x10^{-4}$

**37. 1 CSL is the largest practical unit of----------.**
a) Time b) Mass c) Sound d) Temparature

**38. The dimension of planks constant are same as------.**
a) Energy b) Power c) Momentum d)Angular momentum

**39. Length cannot be measured by --------?**
a) Fermi b) Micron c) Debye d) Light year

**40. Which one of the following is dimensional constant?**
a) Refractive Index b) Poission ratio c) Gravitational constant d)Strian

**41. Electric charge is an example for -------- quantity.**
a) Vector b) scalar c) both a&b d) None

**42. A person performing a somersault is an example of --------- motion.**
a) Vibratory b) Circular c) Rotational d) Linear

**43. The parallelogram law of vector addition is equivalent to------- method.**
a) Polygon b) Coplanar c) Triangle d) Collinear

**44. Vectors can be added-----?**
a) Algebraically b) Geometrically c) Graphically d) Both b&c

**45. The Horizontal component of a vector is ----------?**
a) R sinθ b) R cos θ c) R tanθ d) R cotθ

**46. Which of the following changes when a particle moving with uniform velocity?**
a) speed b) velocity c) acceleration d)position vector

**47. The numerical ratio of average velocity to average speed ?**
a) less than 1 b) greater than 1 c) less than = 1 d) greater than = 1

**48. The path of the particle moving under the force fixed in magnitude and direction is ------**
a) straight line b) circle c) parabola d) ellipse

**49. The angle of projection for a projectile to cover maximum range is ------?**
a) $30^0$ b) $60^0$ c) $0^0$ d) $45^0$

**50. The relation between linear and angular velocity is ------?**
a) $r = v\dot{\varphi}$ b) $\dot{\varphi} = r\,v$ c) $v = r\dot{\varphi}$ d) $r = \dot{\varphi}$

**51. The condition for skidding is -------?**
a) $\tan\theta = \mu$ b) $\tan\theta < \mu$ c) $\tan\theta > \mu$ d) $\tan\theta = 0$

**52. Which one of the following is not a force ?**
a) Impulse b) Tension c) Thrust d) Weight

**53. Which of the following force tends to stop the moving object ?**
a) Frictional b) Magnetic c) Electric d) Gravitational

**54. Newton 3rd law explains the concept of -------?**
a) Inertia b) Momentum c) Nature of force d) None

**55. A large force is acting on a body for short time .The impulse imparted is equal to change in -------?**
a) Accelaration b) Momentum c) Energy d) Velocity

**56. When milk churned, cream gets separated due to --------?**
a) Centripetal force b) Centrifugal force c) Frictional force d) Gravitational force

**57. Increase a temperature, the frictional force acting between two surfaces?**
a) Increases b) Remains same c) Decreases d) Zero

**58. The force required to stop a moving object depends on -----?**
a) mass b) velocity c) a (or) b d) a& b

**59. When the speed of a moving body is doubled?**
a) Acceleration is doubled b) Momentum is doubled c) K.E is doubled d) P.E is doubled

**60. The dimensional formulae of coefficient of friction---------?**
a) $[MLT^{-2}]$ b) $[M^0L^0T^0]$ c) $[M^2LT^{-2}]$ d) $[M^2LT]$

**61. What is the time period of audible sound waves?**
a) $10^{-3}$s b) $10^{-2}$s c) $10^{-4}$s d) $10^{-8}$s

**62. The study of the nature of the particle is -------?**
a) Atomic physics b) High energy physics c) Nuclear physics d) Optics

**63. Bio compatible materials for organ replacement are predicted using -------?**
a) Atomic physics b) Quantum physics c) Nuclear physics d) Optics

**64. $E=mc^2$ was experimentally proved in 1932 by ----?**
a) Walton b) Cockcroft c) both a&b d) only b

**65. What is the unit of Plank's constant?**
a) J/s b) Js c) J/K d) JK

**66. The vector act along the same line. The angle between them is ----?**
a) $90^0$ b) $120^0$ c) $180^0$ d) $45^0$

**67. A vector multiplied by a scalar product results is ---?**
a) Scalar b) vector c) both a&b d) None

**68. In, self- dot product the value of angle----?**
a) $\theta = 0^0$ b) $\theta = 120^0$ c) $\theta = 90^0$ d) $\theta = 45^0$

**69. It is ----- if the angle between the vector is acute?**
a) Positive b) Negative c) Zero d) None

**70. The vector product of two non-zero vectors will be minimum when?**
a) $\theta = 180^0$ b) $\theta = 120^0$ c) $\theta = 90^0$ d) $\theta = 45^0$

**71. Who coupled the motion with force?**
a) Aristotle b) Galileo c) Kepler d) Copernicus

**72. ------ deals with the motion of object in absence of any force?**
a) Newton 1st law b) Newton 2nd law c) Newton 3rd law d) all the above
**73. -------- is useful to analyse the forces acting on object which are in static equilibrium?**
a) Newton's laws b) Lami's theorem c) Impulse d) Friction
**74. The coefficient of static friction is equal to ------ of the angle of friction?**
a) cos θ b) tan θ c) sin θ d) sec θ
**75. How many factors determine the safe speed of the car at turning?**
a) 1 b) 2 c) 3 d) 4
**76. The dimensional formula of work is ------?**
a) $[ML^2T^{-2}]$ b) $[ML^2T^{-3}]$ c) $[MLT^{-1}]$ d) $[ML^3T^{-3}]$
**77. If angle $\theta = 90^0$ then the nature of work is----?**
a) Maximum b) minimum c) zero d) positive
**78. Physical independence of force is a consequence of -------?**
a) Newton 1st law b) Newton 2nd law c) Newton 3rd law d) all the above√
**79. For a plastic ball, the coefficient of restitution is-----?**
a) e = 1 b) e =-1 c) e = 0 d) constant
**80. The center of mass is at ---- when center mass has uniform motion?**
a) Decreases b) Increases c) a (or) b d) Constant
**81. Which is called 'pseudo vector'?**
a) Torque b) Angular momentum c) Acceleration d) Moment of Inertia
**82. The torque is ----when 'r' vector and 'F' vector are perpendicular to each other. That is when $\theta = 90^0$ and $\sin 90^0 = 1$, Hence torque maximum = rF. ?**
a) Maximum b) minimum c) zero d) constant
**83. If the linear momentum is zero, the angular momentum is ----?**
a) Maximum b) minimum c) zero d) constant
**84. The radius of gyration of touching one end and perpendicular to the length-----?**
a) $K = l / \sqrt{3}$ b) $K = l / \sqrt{12}$ c) $K = \sqrt{l^2+b^2}/12$ d) $K = l / \sqrt{2}\ l^2$
**85. The dimensions of impulse are same as that of------?**
a) Linear momentum b) force c) pressure d) Torque
**86. Which of the following is not a vector quantity?** a) Speed b) velocity c) Torque d) Displacement
**87. A body moving with a constant speed on a horizontal surface does not have -----?**
a) Velocityb) Momentum c) Kinetic Energy d) Acceleration
**88. Work done by a simple pendulum in one complete oscillation is -----?**
a) Zero b) mg sin θ c) mg cos θ d) √mg
**89. The unit of centre of mass in SI system is----?**
a) metre b) $Kgm^2$ c) Kg m d) Kg
**90. If the normal force is doubled, then coefficient of friction---?**
a) Halved b) Doubled c) Tripled d) Not changed

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**91. The unit of moment of inertia is --------**
a) Nm b) $Nm^{-2}$ c) $kg / m^2$ d) kgm
**92. The value of 1parsec is ---- light year.**
a) 3.08 b) 3.16 c) 3.26 d) 3.36
**93. Odd one out:** a) Length b) velocity c) acceleration d) strain
**94. The whirling motion of a stone attached to a string is example of ----------?**
a) Rotational motion b) Circular motion c) a & b d) Translation motion
**95. Motion of a coin on a carom board is example of ------?**
a) One dimension b) Two dimension c) Three dimension d) Circular motion
**96. In uniform circular motion, the centripetal force is perpendicular to the displacement. Hence, work done by this force is -------?** a) Maximum b) Minimum c) Zero d) a & b
**97. Which concept was given by Newton's first law of motion ?** a) Force b) Weight c) Work d) Inertia

**98. Newton's third law explain the concept of -------?**
a) Inertia b) Momentum c) Torque d) Nature of force
**99. A particle revolves round a circular path. The acceleration of the particle is inversely proportional to –**
a) Radius b) Velocity c) Mass of the particle d) both a& b
**100. The SI unit of Consumption of Energy?**
a) Watt b) Watt second c) Watt hour d) Kilowatt hour
**101. The work done by the conservative force is ------ of the path.**
a) Dependent b) Independent c) Both (a) and (b) d) either (a) or (b)
**102. The coefficient of restitution in perfectly plastic ball ------?**
a) e = 0 b) e = 1 c) e < 1 d) e > 1
**103. Radius of gyration of a body depends on-----?**
a) axis of rotation b) translational motion
c) Shape of the body d) area of the body
**104. Angular momentum of the particle rotating with a central force is constant due to --------?**
a) Constant force b) Constant torque
c) Constant linear momentum d) Zero torque
**105. The location of center of mass of a sphere is at:**
a) its top b) its bottom c) geometric center d) all the above
**106. When a body is taken from poles to equator on the Earth its weight ----?**
a) Decreases b) Increases c) Remains same d) Both a & b
**107. Weightlessness in satellite is due to:**
a) Zero gravitational acceleration b) Zero acceleration c) Zero mass d) None
**108. The period of a planet around Sun is 27 times that of Earth. The ratio of radius if planet's orbit to the radius of Earth's orbit is:** a) 4 b) 9 c) 27 d) 64
**109. According to Hook's law of elasticity if stress is increased, the ratio of stress to strain ------?**
a) Decreases b) Increases c) Remains same d) Zero
**110. Which one is not a dimensional number?**
a) Velocity of light b) Surface tension of water
c) Reynold's number d) Acceleration due to gravity
**111. Two train drops falling through air have radii in the ratio 1:2. They will have terminal velocity in the ratio:**
a) 4:1 b) 1:4 c) 1:2 d) 2:1
**112. Amount of heat required to raise the temperature of a body through 1K is called -----?**
a) Thermal capacity b) Specific capacity c) Entropy d) Water equivalent
**113. Which one of the following substances has the largest specific heat?**
a) Kerosene b) Water c) Glycerin d) Tutrpentine
**114. Which of the following parameters does not characterize the thermodynamic state of matter?**
a) Pressure b) Volume c) Work d) Temperature
**115. At 0 K, which of the following properties of a gas will be zero?**
a) Potential Energy b) Kinetic Energy c) Vibrational Energy d) Density
**116. The phenomenon of Brownian movement may be taken as evidence of:**
a) EMT of radiation b) Corpuscular theory of light
c) Photoelectric phenomenon d) Kinetic theory of matter
**117. The physical quantity which remains constant in simple harmonic motion is:**
a) Potential energy b) Kinetic energy c) Displacement d) Frequency
**118. Two waves of the same frequency and intensity superimpose each other in opposite phases. After the superposition, the intensity and frequency of waves will:**
a) Decreases b) Increases c) Remains same d) Zero

**119. The phenomenon of beats can take place:**
a) For Longitudinal waves only b) For Transverse waves only
c) For Sound waves only d) For Longitudinal waves & Transverse wave

**120. The surface tension of liquid decreases with rise in:**
a) Temperature of the liquid b) Viscosity of the liquid
c) Thickness of the liquid d) Diameter of container

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**121. In hot summer after bath, the body's -----?**
a) Internal energy decreases b) Internal energy increases
c) Heat decreases d) No change heat and Internal energy

**122. Even carnot engine give 100% efficiency, because we cannot -----?**
a) Prevent radiation b) Final ideal sources
c) Eliminate friction d) Reach absolute zero temperature

**123. The ratio $\gamma = C_p / C_v$ for a gas mixture consisting of 8g of helium 16g of Oxygen is----?**
a) 23/35 b) 15/23 c) 27/11 d) 17/27

**124. The force of gravitation is ----?**
a) Repulsion b) Electrostatic c) Conservative d) Non - Conservative

**125. When a body is taken from poles to equator on the Earth, its weight -----?**
a) Decreases b) Increases c) Remains same d) Increase south pole

**126. An earth satellite is moving around the earth in circular orbit. In such case, what is conserved?**
a) Velocity b) Linear momentum c) Angular momentum d) None of these

**127. A satellite is to revolve around the earth in a circle of radius 8000km. The speed at which This satellite be projected into an orbit, will be:**
a) 3km/s b) 16 km/s c) 7.15 km/s d) 8 km/s

**128. All the known planets move in -----?**
a) Straight path b) Circular path c) Hyperbolic path d) Elliptical path

**129. A missile is launched with a velocity less than escape velocity. The sum of its kinetic and potential energies is:**
a) Zero b) Negative c) Positive d) Both (a) and (b)

**130. A stretched rubber has -----?**
a) Increase potential energy b) Increase kinetic energy
c) Decrease Kinetic energy d) Decrease potential energy

**131. Viscous force depends upon by ------?**
a) Speed b) Velocity c) stress d) strain

**132. An aero plane gets its upward lift due to a phenomenon described by the:-----?**
a) Archimedes principle b) Bernoulli's principle
c) Pascal law d) Buoyancy principle

**133. In old age arteries carrying blood in the human body narrow resulting in an Increase in the blood pressure. This follows from ------?**
a) Archimedes principle b) Bernoulli's principle
c) Pascal law d) Buoyancy principle

**134. The surface tension of liquid decreases with a rise in: ------?**
a) Temperature of the liquid b) Viscosity of the liquid
c) Thickness of the container d) Diameter of the container

**135. If a liquid does not wet glass, its angle of contact is :**
a) Acute b) Obtuse c) Zero d) Right angle

**136. Which one of the following substances has the largest specific heat?**
a) Kerosene b) Water c) Glycerine d) Turpentine

**137. In which of the following phenomena, the heat waves travel along straight lines with the speed of light -------?**
a) Forced convection b) Natural convection
c) Thermal radiation d) Thermal conduction

**138. First law of thermodynamics corresponds to -------?**
a) Conservation of energy b) Law of conservation of angular momentum
c) Newton's law of cooling d) Heat flow from hotter to cold body

**139. Which one of the following is not a state function?**
a) Entropy b) Work c) Temperature d) Pressure

**140. The CGS unit of heat is ------?**
a) Degree b) Joule c) Calorie d) Fahrenheit

**141. According to kinetic theory of gases, molecules of a gas behave like:**
a) Perfectly elastic rigid body b) Perfectly elastic non- rigid body
c) Inelastic spheres d) Inelastic non-rigid spheres

**142. The temperature of $H_2$ at which the rms velocity of its molecules is seven times the rms velocity of the molecules of nitrogen at 300K is ------?**
a) 1700 K b) 2100 K c) 1050 K d) 1350 K

**143. At 0K, which of the following properties of a gas will be zero?**
a) Potential energy b) Kinetic energy c) Vibration energy d) Density

**144. The physical quantity which remains constant in simple harmonic motion is -----?**
a) Potential energy b) Kinetic energy c) frequency d) Displacement

**145. What is the length of a simple pendulum which ticks seconds?**
a) 2m b) 1m c) 3m d) 4m

**146. What is the unit of Compliance?**
a) N / m b) $N^{-1}$ m c) $Nm^{-1}$ d) $Nm^{-2}$

**147. The apparent frequency in Doppler's effect does not depends upon -----?**
a) Speed of the source b) Speed of the observer
c) Frequency of the source d) Distance between observer and source

**148. The observer hears no beats. If the frequency of the horn of the car B is 504 Hz, The frequency of the horn of the car A will be -----?**
a) 440.5 Hz b) 295.2 Hz c) 529.2 Hz d) 925.2 Hz

**149. The phenomenon of beats can take place:**
a) Sound waves only b) Transverse waves only c) Longitudinal waves only d) both (b) and (c)

**150. With the propagation of a longitudinal wave through a material medium, the quantities Transmitted in the direction of propagation is are:**
a) Energy b) Energy and mass c) Energy, momentum and mass d) Energy and linear momentum

**151. Special theory of relativity is a branch of physics. It does not deal with ----------?**
a) Space b) Mass c) Motion of particles d) Time

**152. Two projectile P and Q are fired from the same point with same velocity at angles $30^0$ and $60^0$. The horizontal range----------?** a) P = Q b) P Less than Q c) P Greater than Q d) None

**153. A jet engine works on the principle of --------?**
a) Conservation of linear momentum b) Conservation of angular momentum
c) Conservation of mass d) Conservation of energy

**154. If a stone is released from a tower then its total energy during its fall-------?**
a) Increases b) Decreases c) Remains constant d) Both a and c

**155. Angular momentum is -------- vector.**
a) Unit b) Polar c) Axial d) Unlike

**156. The centre of mass of a body practically coincides with ------?**
a) Centre of gravity b) Centre of buoyancy c) Orthocentre d) metacentre

**157. The force of gravitation is ----------**
a) Repulsive force b) Electrostatic force c) Conservative force d) Non - Conservative force

**158. Find the odd one out.** a) Stress b) Capillarity c) Young's modulus d) Strain

**159. If there were no gravity, which of the following will not be there for a fluid?**
a) Viscosity b) Archimedes upward thrust c) pressure d) Surface tension

**160. Which of the following parameters does not characterize the thermodynamic state of matter?**
a) Pressure b) Volume c) Work d) Temperature

**161. If the temperature of the source is increased then what will happen to the efficiency of a carnot engine?**
a) Increases b) Decreases c) Remains constant d) Both a and b

**162. Resonance is an example of --------?**
a) Tuning fork b) Damped vibration c) Forced vibration d) Free vibration

**163. The reciprocal of stiffness constant is ---------?**
a) Phase b) Compliance c) Acceleration d) stress

**164. Which physical quantity is conserved during the oscillations of a simple pendulum?**
a) Total mechanical energy b) Total kinetic energy c) Total potential energy d) None

**165. The apparent frequency in Doppler's effect does not depend upon ---?**
a) Speed of the source b) Speed of the observer c) Frequency of the source
d) Distance between source and observer

**166. In the classification of sound waves which one of the following statements is correct?**
**The sound waves having frequencies between 20Hz to 20KHz are--------?**
a) Ultrasonic waves b) Infrasonic waves c) Audible waves d) Transverse waves

**167. What is the shape when a non-wetting liquid is placed in a capillary tube?**
a) Convex upwards b) Convex downwards c) Concave downwards d) Concave upwards

**168. Unit of Stefan's constant--------?** a) Watt $m^2K^4$ b) Watt $m^{-2}K^4$ c) Watt $m^2$ $K^{-4}$ d) Watt $m^{-2}K^{-4}$

**169. The breaking stress of a wire depends on ----?**
a) Length of wire b) Nature of the wire c) Diameter of the wire d) Shape of the cross section

**170. A disc is rotating with angular speed ω. If a child sits on it what is conserved?**
a) Linear momentum b) Angular momentum c) Kinetic energy d) Potential energy

**171. Work done by 0.1 mole of gas at $27^0$C to double its volume at constant pressure is ------?**
a) 54 Cal b) 60 Cal c) 546 Cal d) 600 Cal

**172. A man pushes a wall and fails to displace it. He does -------?**
a) Negative work b) No work at all c) Maximum work d) positive but not maximum work

**173. The volume of a gas expands by 0.25$m^3$ at constant pressure of $10^3$N/m. The work done is ------?**
a) 250 W b) 2.5 W c) 250 N d) 250 J

**174. In the equilibrium position a body has -------?**
a) Maximum potential energy b) Maximum kinetic energy
c) Minimum potential energy d) Minimum kinetic energy

**175. The angle between particle velocity and wave velocity in a transverse wave is --------?**
a) Zero b) $45^0$ c) $90^0$ d) $180^0$

**176. In some region the gravitational field is zero. The gravitational potential in this region is ------?**
a) a variable b) a constant c) Zero d) Can't be zero

**177. For a liquid to rises in capillary tube the angle of contact should be ------?**
a) Acute angle b) Obtuse angle c) Right angle d) None

**178. A sonometer wire is vibrating in the second overtone. In the wire there are --------?**
a) Two nodes and three antinodes b) Two nodes and two antinodes
c) Four nodes and three antinodes d) Three nodes and three antinodes

**179. A lift of mass 1000Kg which is moving with an acceleration of 1 $m/s^{-2}$ in upward direction has tension has developed in its ------?**
a) 9800 N b) 10800 N c) 11000 N d) 10500 N

**180. When train stops, the passenger moves forward. It is due to ---------?**
a) Inertia of passenger b) Inertia of train c) Gravitational pull by earth d) None

**181. The average translational kinetic energy of a gas molecule depends on --------?**
a) Number of moles and T b) only on T c) P and T d) P only

**182. The centre of mass of particles does not depend upon ------?**
a) Position of particles c) Relative distance between particles
b) Mass of Particles d) Force acting on particle

**183.Which is the practical examples of stokes law?**
a) Flotation of clouds b) Blood circulation of human body
c) Ice floats on water d) Hydraulic lift

**184. Who is explain this retrograde motion using the concept of 'epicycle' ---------?**
a) Hippachrus b) Ptolemy c) Copernicus d) Kepler

**185. The example of projectile is -------?**
a) A bullet fired from a rifle b) camphor boat c) Ice floats on water d) Hydraulic lift

**186. A dimensionless quantity is ---------?**
a) Never has a unit b) May have (or) have not a unit c) Always has a unit d) None

**187. The magnitude of average velocity is equal to average speed with the particle moving with -------?**
a) Variable speed b) Constant velocity c) Constant acceleration d) Variable velocity

**188. When a spiral spring is stretched by a force the resultant strain is -------?**
a) Volume b) Shear c) Tensile d) All the above

**189. The rain drops are spherical shape due to --------?**
a) Gravity b) Surface tension c) Viscosity d) Due to contraction

**190. A body cools from $60^0$C to $50^0$C in 10 minute of room after 10 more minute?**
a) $41.8^0$C b) $42.8^0$C c) $43.8^0$C d) $44.8^0$C

**191. A perfect gas is contained in a cylinder kept in vacuum. If the cylinder suddenly bursts then the temperature of the gas---------?**
a) Increase b) Decrease c) Becomes 0K d) Remains unchanged

**192. The work done by the sun gravitational force on the earth is ----------?**
a) Always zero b) Always positive c) Always Negative d) Always positive (or) Always Negative

**193. Gravitational mass is proportional to the gravitational ----------?**
a) Field b) Force c) Intensity d) Energy

**194. Work done by a simple pendulum in one complete Oscillation is ------?**
a) Zero b) mg c) mgcosθ d) mgsinθ

**195. The velocity of sound changes by ---------.When the temperature change by one degree celcius.**
a) 0.51m/s b) 0.61m/s c) 0.71m/s d) 0.41m/s

**196. Bernoulli's equation is consequences of conservation of ----?**
a) Energy b) Mass c) Linear momentum d) Angular momentum

**197. The significant figure of the number 0.003401 is -----?**
a) 6 b) 3 c) 4 d) 5

**198. Action and reaction acts on -----?**
a) Same object b) Different object c) Resultant not zero d) Same direction

**199. An object of mass 20kg is taken to a height 5m from the ground. Calculate the potential energy stored in the object?** a) 98J b) 500J c) 1000J d) 986J

**200. Stress is directly proportional to the strain is ------?**
a) Stokes law b) Hooke's law c) Law of buoyancy d) Law of flotation

**ANSWER:**

**Q.NO 1 TO 80**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| A | B | D | A | A | C | B | A | B | D |
| A | A | A | D | A | A | A | B | C | B |
| C | D | A | B | D | A | A | B | B | B |
| A | B | C | B | B | D | B | D | C | C |
| B | C | C | D | B | D | | C | D | C |
| C | A | A | C | B | B | | D | B | B |
| A | B | B | C | B | C | B | B | A | A |
| A | A | B | B | B | A | C | A | C | D |

**Q.NO 81 T0 200**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| A | A | C | B | B | A | D | A | D | B |
| **C** | **C** | D | B | B | C | D | D | D | B |
| B | A | A | D | C | A | A | B | B | C |
| B | A | B | C | B | D | D | C | D | A |
| A | D | C | C | A | C | C | D | B | A |
| B | B | B | A | B | B | C | A | B | C |
| A | C | B | C | B | B | D | C | D | A |
| C | A | A | C | C | A | C | B | B | C |
| A | C | B | A | D | C | A | D | B | B |
| B | B | D | D | C | B | A | D | C | A |
| A | D | A | B | A | B | B | B | B | B |
| D | D | B | A | B | A | C | B | C | B |

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