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9TH CLASS PHYSICS

200 MOST IMPORTANT MCQs

SMART SYLLABUS 2026–27 • PUNJAB BOARDS

ANNUAL EXAMINATION 2027 | PRACTICE TEST

200 QUESTIONS • **9** CHAPTERS • **200** MARKS

CONCEPT • UNDERSTANDING • EXAM PRACTICE

TEST FORMAT	HOW TO ATTEMPT
• 200 MCQs • 1 mark per question • Total practice marks: 200 • Answer key at the end	Choose only one best option for each question. Attempt the complete test before checking the answer key.

Syllabus alignment: This practice set follows the supplied Smart Syllabus / ALP exclusions and chapter-wise distribution. It is an expanded practice resource, not an official board paper.

CHAPTER 1 | PHYSICAL QUANTITIES AND MEASUREMENTS

17 MCQs

001. Physics is the branch of science that studies:

A. Only chemicals
B. The Earth's history
C. Matter, energy and their interactions
D. Living organisms

002. A quantity that can be measured is called a:

A. Constant only
B. Guess
C. Theory
D. Physical quantity

003. Which is an SI base quantity?

A. Speed
B. Force
C. Mass
D. Pressure

004. The SI unit of length is:

A. Kilometre
B. Metre
C. Centimetre
D. Foot

005. The SI unit of time is:

A. Minute
B. Second
C. Day
D. Hour

006. The SI unit of temperature is:

A. Joule
B. Kelvin
C. Fahrenheit
D. Degree Celsius

007. Which one is a derived quantity?

A. Volume
B. Mass
C. Length
D. Time

008. The SI unit of area is:

A. kg
B. m
C. m^2
D. m^3

009. The SI unit of volume is:

A. m
B. cm
C. m^3
D. m^2 Muhammad Ali Photo State Zafarwal Page 1

010. The SI unit of density is:

A. m s^{-1}
B. kg m^{-2}
C. kg m^{-3}
D. N m^{-2}

011. The SI unit of force is:

A. Newton **B.** Joule
C. Watt **D.** Pascal

012. The SI unit of pressure is:

A. Pascal **B.** Joule
C. Newton **D.** Watt

013. A prefix kilo represents:

A. 10^{3} **B.** $10\blacksquare^{3}$
C. $10\blacksquare$ **D.** 10^{2}

014. A prefix milli represents:

A. $10\blacksquare^{1}$ **B.** 10^{3}
C. $10\blacksquare^{2}$ **D.** $10\blacksquare^{3}$

015. The prefix micro represents:

A. $10\blacksquare\blacksquare$ **B.** $10\blacksquare$
C. $10\blacksquare^{3}$ **D.** $10\blacksquare\blacksquare$

016. A measuring instrument should have:

A. A suitable calibrated scale **B.** No scale
C. Only a pointer **D.** An unknown unit

017. Which is the correct way to write a measured physical quantity?

A. Numerical value with unit **B.** Number only
C. A symbol without value **D.** Unit only

CHAPTER 2 | KINEMATICS

17 MCQs

018. Kinematics deals with the study of:

A. Magnetism **B.** Motion without discussing its causes
C. Heat transfer **D.** Causes of motion

019. An object is at rest when its position does not change with respect to:

A. Its mass **B.** Its temperature
C. Its colour **D.** A reference point

020. The shortest straight-line distance from initial to final position is:

A. Path length **B.** Displacement
C. Distance **D.** Speed

021. Distance is a:

A. Scalar quantity **B.** Vector quantity
C. Force **D.** Base unit

022. Displacement is a:

A. Vector quantity **B.** Type of energy
C. Unit of time **D.** Scalar quantity

023. The SI unit of speed is:

A. m/s **B.** kg m/s
C. N **D.** m/s^2

024. Average speed is equal to:

A. Total distance / total time **B.** Time / distance
C. Change in velocity / time **D.** Total displacement / time

025. Velocity is speed with:

A. Temperature **B.** Direction
C. Pressure **D.** Mass

026. The SI unit of acceleration is:

A. m/s **B.** m/s^2
C. km/h **D.** m^2/s

027. Acceleration is the rate of change of:

A. Distance **B.** Velocity
C. Displacement **D.** Mass

028. A body moving with constant velocity has:

A. Zero acceleration **B.** Changing direction
C. Increasing speed **D.** Increasing acceleration

029. If velocity changes from 5 m/s to 15 m/s in 2 s, acceleration is:

A. 5 m/s^2 **B.** 20 m/s^2
C. 7.5 m/s^2 **D.** 10 m/s^2 Muhammad Ali Photo State Zafarwal Page 2

030. A car covers 100 m in 5 s. Its average speed is:

A. 50 m/s **B.** 5 m/s
C. 20 m/s **D.** 10 m/s

031. The area under a speed-time graph represents:

A. Acceleration **B.** Distance travelled
C. Force **D.** Power

032. A horizontal line on a speed-time graph indicates:

A. Increasing speed **B.** Zero distance
C. Uniform speed **D.** Uniform acceleration

033. **The SI unit of displacement is:**

A. Metre per second squared **B.** Metre per second
C. Second **D.** Metre

034. **When an object returns to its starting point, its displacement is:**

A. Equal to distance **B.** Always negative
C. Zero **D.** Always positive

CHAPTER 3 | DYNAMICS

33 MCQs

035. **Dynamics deals with motion and its:**

A. Colour **B.** Temperature only
C. Shape only **D.** Causes

036. **The tendency of a body to resist a change in its state of rest or motion is:**

A. Inertia **B.** Momentum
C. Pressure **D.** Power

037. **The measure of inertia of a body is its:**

A. Speed **B.** Mass
C. Temperature **D.** Volume

038. **Newton's first law is also called the law of:**

A. Energy **B.** Acceleration
C. Inertia **D.** Gravitation

039. **According to Newton's first law, a body continues in its state unless acted upon by:**

A. Its weight only **B.** A net external force
C. Friction always **D.** Heat

040. **The SI unit of force is:**

A. J **B.** kg
C. W **D.** N

041. **One newton is the force that gives a 1 kg mass an acceleration of:**

A. 1 m/s **B.** 9.8 m/s²
C. 1 m/s² **D.** 1 kg/s

042. **Newton's second law relates force to mass and:**

A. Speed **B.** Acceleration
C. Distance **D.** Power

043. **The mathematical form of Newton's second law for constant mass is:**

A. F = ma **B.** F = a/m
C. F = mv **D.** F = m/a

044. A net force of 10 N acts on a 2 kg body. Its acceleration is:

A. 2 m/s² **B.** 20 m/s²
C. 10 m/s² **D.** 5 m/s²

045. If the same force acts on twice the mass, acceleration becomes:

A. Double **B.** Half
C. Unchanged **D.** Four times

046. Newton's third law states that action and reaction are:

A. Equal and opposite **B.** Unrelated
C. Unequal and opposite **D.** Equal and same direction

047. Action and reaction forces act on:

A. Only stationary bodies **B.** Different bodies
C. Only moving bodies **D.** The same body

048. When a swimmer pushes water backward, the water pushes the swimmer:

A. Forward **B.** Downward only
C. Backward **D.** With no force

049. The product of mass and velocity is called:

A. Momentum **B.** Pressure
C. Impulse **D.** Work Muhammad Ali Photo State Zafarwal Page 3

050. The SI unit of momentum is:

A. J/s **B.** kg/m³
C. N/m² **D.** kg m/s

051. Momentum of a 2 kg body moving at 3 m/s is:

A. 2 kg m/s **B.** 3 kg m/s
C. 6 kg m/s **D.** 5 kg m/s

052. Impulse is equal to the change in:

A. Momentum **B.** Distance
C. Mass **D.** Energy only

053. The SI unit of impulse is:

A. W s■¹ **B.** N s
C. N/m **D.** kg/m³

054. A force of 4 N acts for 3 s. The impulse is:

A. 1.3 N s **B.** 12 N s
C. 24 N s **D.** 7 N s

055. Friction acts in a direction that generally:

A. Is always zero
B. Is always upward
C. Supports relative motion
D. Opposes relative motion

056. The force that opposes motion between surfaces in contact is:

A. Magnetic force
B. Buoyant force
C. Gravitational force
D. Friction

057. Lubricants are used to:

A. Increase mass
B. Increase friction
C. Reduce friction
D. Stop gravity

058. A seat belt protects passengers mainly because of:

A. Magnetism
B. Evaporation
C. Pressure
D. Inertia

059. A rocket moves upward because gases are expelled:

A. Upward
B. Downward
C. Sideways only
D. Without momentum

060. If the net force on a body is zero, its acceleration is:

A. Negative always
B. Infinite
C. Zero
D. Maximum

061. A 5 kg body accelerates at 2 m/s². Net force is:

A. 10 N
B. 7 N
C. 25 N
D. 2.5 N

062. The weight of a body is the gravitational:

A. Density
B. Mass
C. Volume
D. Force

063. Weight is calculated by:

A. W = g/m
B. W = mv
C. W = m/g
D. W = mg

064. The approximate value of g near Earth's surface is:

A. 9.8 m/s²
B. 6.7 m/s²
C. 98 m/s²
D. 1.6 m/s²

065. Mass of a body on the Moon compared with Earth is:

A. Zero
B. Less
C. The same
D. Greater

066. Weight of a body on the Moon is approximately:

A. Six times its Earth weight **B.** One-sixth of its Earth weight
C. Same as on Earth **D.** Zero

067. Newton's second law can also be expressed as force equal to the rate of change of:

A. Mass **B.** Energy
C. Displacement **D.** Momentum

CHAPTER 4 | TURNING EFFECTS OF FORCE

33 MCQs

068. The turning effect of a force is called:

A. Moment of force **B.** Momentum
C. Pressure **D.** Power

069. The SI unit of moment of force is:

A. J/s **B.** N
C. N m **D.** Pa Muhammad Ali Photo State Zafarwal Page 4

070. Moment of force is calculated as force multiplied by:

A. Time **B.** Perpendicular distance from pivot
C. Velocity **D.** Mass

071. The turning point of a lever is called:

A. Effort **B.** Pivot
C. Fulcrum arm **D.** Load

072. A door handle is fixed far from the hinges to:

A. Increase the turning effect **B.** Increase its mass
C. Reduce the turning effect **D.** Reduce its area

073. A force whose line of action passes through the pivot produces:

A. Maximum moment **B.** Zero moment
C. Infinite moment **D.** Double moment

074. The principle of moments states that for rotational equilibrium:

A. All forces must be zero individually **B.** Mass equals weight
C. Clockwise moments equal anticlockwise moments **D.** Speed is constant

075. A 10 N force acts perpendicularly 0.5 m from a pivot. Its moment is:

A. 5 N m **B.** 2 N m
C. 10 N m **D.** 20 N m

076. A 20 N force acts at a perpendicular distance of 2 m. Moment is:

A. 22 N m **B.** 10 N m
C. 40 N m **D.** 20 N m

077. The perpendicular distance from pivot to line of action is called:

A. Pressure arm **B.** Radius of mass
C. Arm of force **D.** Displacement

078. A spanner with a longer handle makes it:

A. Harder to turn a nut **B.** Unable to turn
C. Heavier only **D.** Easier to turn a nut

079. A couple consists of two forces that are:

A. Equal, opposite and parallel **B.** At the same point
C. Unequal and parallel **D.** Equal and same direction

080. The resultant force of a couple is:

A. Maximum **B.** Infinite
C. Zero **D.** Equal to one force

081. A couple produces:

A. Linear acceleration only **B.** Translation only
C. No effect **D.** Rotation

082. For a body in translational equilibrium, the resultant force is:

A. Maximum **B.** Equal to its weight
C. Always upward **D.** Zero

083. For rotational equilibrium, the sum of clockwise and anticlockwise moments is:

A. Equal **B.** Always negative
C. Always positive **D.** Not equal

084. A balanced seesaw is an example of:

A. Elastic collision **B.** Rotational equilibrium
C. Free fall **D.** Uniform acceleration

085. If a 5 N force acts at 4 m from a pivot, its moment is:

A. 20 N m **B.** 1.25 N m
C. 9 N m **D.** 25 N m

086. The moment of a force increases when the perpendicular distance:

A. Increases **B.** Decreases
C. Is unchanged **D.** Becomes zero

087. The moment of a force is zero when the force is:

A. Perpendicular to the arm **B.** Along the line through pivot
C. Very large **D.** At maximum distance

088. A lever is a rigid bar that can turn about a:

A. Thermometer **B.** Spring balance
C. Pivot **D.** Magnet

089. In a first-class lever, the pivot lies between:

A. Effort and load **B.** Effort and ground
C. Two loads **D.** Two pivots

090. Scissors are commonly an example of a: Muhammad Ali Photo State Zafarwal Page 5

A. Third-class lever **B.** First-class lever
C. Second-class lever **D.** Pulley only

091. In a second-class lever, the load lies between:

A. Two pivots **B.** Pivot and effort
C. Two efforts **D.** Effort and ground

092. A wheelbarrow is an example of a:

A. Second-class lever **B.** First-class lever
C. Third-class lever **D.** Inclined plane

093. In a third-class lever, the effort lies between:

A. Pivot and load **B.** Two loads
C. Two pivots **D.** Load and ground

094. A pair of tweezers is an example of a:

A. First-class lever **B.** Pulley
C. Second-class lever **D.** Third-class lever

095. A force of 8 N produces a moment of 24 N m. Its perpendicular arm is:

A. 2 m **B.** 3 m
C. 16 m **D.** 8 m

096. If clockwise moment is 15 N m, the anticlockwise moment for balance is:

A. 10 N m **B.** 5 N m
C. 30 N m **D.** 15 N m

097. The turning effect depends on force and:

A. Temperature **B.** Density
C. Time **D.** Perpendicular distance

098. The unit N m is used for moment because it is:

A. Mass / volume **B.** Work / time
C. Mass × speed **D.** Force × distance

099. A force applied perpendicular to a lever produces a moment that is:

A. Maximum for that force and arm **B.** Independent of arm
C. Always negative **D.** Zero

100. A balanced body may still have forces acting on it if their effects:

A. Are all upward **B.** Do not balance
C. Cancel as a resultant **D.** Are all zero

CHAPTER 5 | WORK, ENERGY AND POWER

17 MCQs

101. Work is done when a force causes:

A. Only heating **B.** No movement
C. Only a change in colour **D.** Displacement

102. The SI unit of work is:

A. Watt **B.** Joule
C. Pascal **D.** Newton

103. Work done by a constant force in its direction is:

A. F × s **B.** m × v
C. F/s **D.** P/t

104. A force of 10 N moves an object 2 m in its direction. Work done is:

A. 20 J **B.** 10 J
C. 5 J **D.** 40 J

105. If displacement is zero, work done by a force is:

A. Zero **B.** Infinite
C. Maximum **D.** Negative always

106. Energy is the ability to do:

A. Work **B.** Pressure
C. Mass **D.** Temperature

107. The SI unit of energy is:

A. Watt **B.** Joule
C. Pascal **D.** Newton

108. Energy possessed by a body due to its motion is:

A. Kinetic energy **B.** Potential energy
C. Nuclear energy **D.** Chemical energy

109. Kinetic energy is given by:

A. $\frac{1}{2}mv^2$ **B.** mv
C. F/t **D.** mgh

110. **A 2 kg body moves at 3 m/s. Its kinetic energy is: Muhammad Ali Photo State Zafarwal Page 6**

A. 6 J **B.** 9 J
C. 3 J **D.** 18 J

111. **If speed of a body doubles, its kinetic energy becomes:**

A. Four times **B.** Unchanged
C. Half **D.** Two times

112. **Energy due to position or configuration is:**

A. Heat capacity **B.** Sound energy
C. Kinetic energy **D.** Potential energy

113. **Gravitational potential energy near Earth is:**

A. ½mv² **B.** mgh
C. ma **D.** F/s

114. **A 2 kg object is raised 5 m. Taking g = 10 m/s², its gain in potential energy is:**

A. 25 J **B.** 10 J
C. 50 J **D.** 100 J

115. **Power is the rate of doing:**

A. Work **B.** Force
C. Displacement **D.** Momentum

116. **The SI unit of power is:**

A. Watt **B.** Joule
C. Newton **D.** Pascal

117. **One watt is equal to:**

A. One kilogram metre **B.** One newton per metre
C. One joule per second **D.** One joule metre

CHAPTER 6 | MECHANICAL PROPERTIES OF MATTER 33 MCQs

118. **The property by which a material regains its original shape after removing force is:**

A. Density **B.** Elasticity
C. Plasticity **D.** Pressure

119. **A force that changes the shape or size of a body is called:**

A. Magnetic field **B.** Deforming force
C. Weight only **D.** Buoyant force

120. **The SI unit of pressure is:**

A. Joule **B.** Pascal
C. Newton **D.** Watt

121. Pressure is defined as:

A. Area / force **B.** Force / area
C. Mass × volume **D.** Force × area

122. A force of 100 N acts on an area of 2 m². Pressure is:

A. 50 Pa **B.** 20 Pa
C. 100 Pa **D.** 200 Pa

123. For the same force, pressure increases when area:

A. Increases **B.** Doubles
C. Decreases **D.** Becomes larger

124. The SI unit of density is:

A. kg/m³ **B.** kg m/s
C. N/m² **D.** J/s

125. Density is mass per unit:

A. Area **B.** Time
C. Length **D.** Volume

126. A substance has mass 200 g and volume 100 cm³. Its density is:

A. 2 g/cm³ **B.** 20 g/cm³
C. 0.5 g/cm³ **D.** 1 g/cm³

127. Pressure in a liquid increases with:

A. Surface area only **B.** Container shape only
C. Depth **D.** Colour

128. Liquid pressure at a point acts:

A. Only downward **B.** In all directions
C. Only upward **D.** Only sideways

129. The pressure at the same depth in a stationary liquid is:

A. The same in all directions **B.** Zero
C. Different in every direction **D.** Dependent only on container shape

130. The pressure due to a liquid column depends on its density, depth and: Muhammad Ali Photo State Zafarwal Page 7

A. Gravitational field strength **B.** Colour
C. Temperature only **D.** Container width

131. The formula for pressure due to a liquid column is:

A. P = mv **B.** P = ρgh
C. P = Fd **D.** P = mgh

132. A hydraulic press works on:

A. Newton’s third law only
B. Law of reflection
C. Ohm’s law
D. Pascal’s principle

133. Pascal’s principle states that applied pressure to an enclosed fluid is transmitted:

A. Only downward
B. Undiminished in all directions
C. Only upward
D. Only to the walls

134. A hydraulic brake uses pressure transmission through:

A. A solid rod only
B. A magnet
C. A vacuum
D. A liquid

135. A sharp knife cuts easily because its edge has:

A. Low force
B. Small area and high pressure
C. Large area and low pressure
D. Large mass only

136. A broad school bag strap reduces pressure by:

A. Increasing weight
B. Reducing gravity
C. Increasing contact area
D. Reducing contact area

137. An object floats in a liquid when its average density is generally:

A. Less than liquid density
B. Greater than liquid density
C. Always zero
D. Infinite

138. The upward force exerted by a fluid on an immersed body is:

A. Weight
B. Friction
C. Tension
D. Upthrust

139. The SI unit of force per unit area is:

A. Newton metre
B. Watt
C. Joule
D. Pascal

140. A body’s weight acts vertically:

A. In a circular path
B. Horizontally
C. Downward
D. Upward

141. If force is doubled and area remains constant, pressure:

A. Halves
B. Remains same
C. Doubles
D. Becomes zero

142. If area is doubled and force remains constant, pressure:

A. Doubles
B. Remains same
C. Halves
D. Quadruples

143. **The pressure exerted by a solid on a surface depends on its weight and:**

A. Contact area **B.** Speed
C. Temperature **D.** Colour

144. **A spring balance measures:**

A. Force **B.** Volume
C. Time **D.** Temperature

145. **A body with mass 1 kg has weight near Earth of approximately:**

A. 0.1 N **B.** 9.8 N
C. 1 N **D.** 98 N

146. **The force that pushes an immersed object upward is caused by:**

A. Light **B.** Magnetic poles
C. Fluid pressure difference **D.** Sound

147. **The pressure at the bottom of a liquid container is greater than near the surface because:**

A. Liquid is warmer **B.** Gravity is absent
C. Depth is greater **D.** Area is greater

148. **A liquid can transmit pressure because its particles can:**

A. Remain fixed **B.** Become magnetic
C. Flow **D.** Only vibrate in place

149. **The SI unit of volume is:**

A. m^2 **B.** kg
C. m **D.** m^3

150. **A hydraulic machine can multiply force by using pistons of different:**

A. Colours **B.** Areas
C. Densities **D.** Temperatures Muhammad Ali Photo State Zafarwal Page 8

CHAPTER 7 | THERMAL PROPERTIES OF MATTER

17 MCQs

151. **Temperature is a measure of:**

A. The amount of matter in a body **B.** Force per unit area
C. Work done per second **D.** How hot or cold a body is

152. **The SI unit of temperature is:**

A. Fahrenheit **B.** Celsius
C. Joule **D.** Kelvin

153. **The lower fixed point on the Celsius scale is:**

A. 100°C **B.** 273°C
C. 32°C **D.** 0°C

154. The upper fixed point on the Celsius scale is:

A. 32°C **B.** 212°C
C. 100°C **D.** 0°C

155. The temperature 0°C is approximately:

A. 0 K **B.** 273 K
C. 100 K **D.** 373 K

156. To convert Celsius to Kelvin, we approximately:

A. Subtract 273 **B.** Multiply by 273
C. Divide by 273 **D.** Add 273

157. Normal human body temperature is approximately:

A. 47°C **B.** 27°C
C. 37°C **D.** 57°C

158. Heat is a form of energy transferred due to a difference in:

A. Shape **B.** Mass
C. Temperature **D.** Density

159. The SI unit of heat energy is:

A. Kelvin **B.** Watt
C. Joule **D.** Pascal

160. Most substances expand when heated because their particles:

A. Move farther apart on average **B.** Stop moving
C. Lose all energy **D.** Become smaller

161. The expansion of a solid in length is called:

A. Linear expansion **B.** Condensation
C. Volume contraction **D.** Evaporation

162. The expansion of a liquid is generally measured by change in:

A. Weight **B.** Density unit only
C. Volume **D.** Mass

163. The SI unit of specific heat capacity is:

A. J kg■¹ K■¹ **B.** J kg K
C. N/m² **D.** W/m

164. Specific heat capacity is the heat required to raise the temperature of 1 kg of a substance by:

A. 100 K **B.** 1°C per second
C. 10 K **D.** 1 K

165. Water has a relatively high:

A. Density at all temperatures **B.** Specific heat capacity
C. Electrical resistance only **D.** Melting point

166. During a change of state, temperature of a pure substance generally:

A. Decreases continuously **B.** Becomes zero
C. Increases continuously **D.** Remains constant

167. The heat required to change state without changing temperature is called:

A. Kinetic energy **B.** Power
C. Pressure **D.** Latent heat

CHAPTER 8 | MAGNETISM

17 MCQs

168. A magnet has two poles called:

A. Positive and negative **B.** Top and bottom only
C. North and south **D.** East and west

169. Like magnetic poles:

A. Always melt **B.** Attract
C. Have no effect **D.** Repel

170. Unlike magnetic poles: Muhammad Ali Photo State Zafarwal Page 9

A. Become neutral **B.** Disappear
C. Attract **D.** Repel

171. The region around a magnet where magnetic force can be experienced is:

A. Gravitational mass **B.** Electric circuit
C. Thermal zone **D.** Magnetic field

172. Magnetic field lines outside a bar magnet go from:

A. North to south **B.** Centre to centre
C. East to west **D.** South to north

173. Magnetic field lines are closest together where the field is:

A. Weakest **B.** Uniformly absent
C. Strongest **D.** Zero

174. Magnetic field lines never:

A. Pass through space **B.** Intersect one another
C. Form closed curves **D.** Have direction

175. A freely suspended bar magnet comes to rest approximately in:

A. East-west direction **B.** Any random direction
C. North-south direction **D.** Up-down direction

176. The north-seeking end of a freely suspended magnet points towards:

A. West **B.** Geographical north
C. Geographical south **D.** East

177. A material that is strongly attracted by a magnet is:

A. Wood **B.** Plastic
C. Iron **D.** Glass

178. Which is a magnetic material?

A. Rubber **B.** Copper
C. Iron **D.** Aluminium

179. A temporary magnet is commonly made using:

A. Soft iron **B.** Wood
C. Plastic **D.** Glass

180. An electromagnet is produced by passing current through:

A. A coil of wire **B.** A plastic sheet
C. A glass tube **D.** A wooden rod

181. The strength of an electromagnet can be increased by increasing:

A. Distance from coil only **B.** Resistance without limit
C. Current in the coil **D.** Wood thickness

182. The core commonly used in a simple electromagnet is:

A. Aluminium **B.** Soft iron
C. Plastic **D.** Copper

183. A compass needle is a small:

A. Thermometer **B.** Magnet
C. Resistor **D.** Battery

184. The direction of magnetic field at a point is given by:

A. North pole of a compass needle **B.** Weight of a magnet
C. Colour of the needle **D.** South pole of a compass needle

CHAPTER 9 | NATURE OF SCIENCE

16 MCQs

185. Science is a systematic study based on:

A. Guesswork alone **B.** Personal likes
C. Observation and evidence **D.** Rumours only

186. A tentative explanation that can be tested is called a:

A. Measurement **B.** Law
C. Hypothesis **D.** Unit

187. A scientific experiment is performed to:

A. Test an idea or hypothesis **B.** Prove a personal opinion
C. Avoid observations **D.** Change facts

188. A scientific theory is:

A. A well-supported explanation **B.** An untested guess
C. A random opinion **D.** A unit of force

189. A scientific law describes:

A. A consistent pattern or relationship in nature **B.** The reason for every event
C. A personal belief **D.** A laboratory rule only Muhammad Ali Photo State Zafarwal Page 10

190. Which is an important part of scientific investigation?

A. Ignoring results **B.** Recording observations
C. Changing data **D.** Avoiding repetition

191. A fair test changes:

A. One variable at a time while controlling others **B.** All variables together
C. No variable and no measurement **D.** Only the final answer

192. The variable deliberately changed by the investigator is the:

A. Control result **B.** Independent variable
C. Constant **D.** Dependent variable

193. The variable measured in an experiment is the:

A. Independent variable **B.** Unit
C. Fixed variable **D.** Dependent variable

194. Repeating an experiment helps to improve:

A. Mass of Earth **B.** Colour of apparatus
C. Temperature scale **D.** Reliability of results

195. A conclusion should be based on:

A. Evidence collected **B.** The expected result only
C. Someone's popularity **D.** A guess

196. A model in science is used to:

A. Replace all evidence **B.** Represent or explain a system
C. Guarantee a result **D.** Avoid testing

197. Scientific knowledge may change when:

A. An opinion changes **B.** New reliable evidence is found
C. A result is hidden **D.** A rumour spreads

198. Which quality is important for a scientist?

A. Ignoring criticism
B. Hiding results
C. Honesty in reporting data
D. Changing measurements

199. An observation made using senses or instruments is:

A. Collected evidence
B. A law
C. A theory only
D. A guess

200. A prediction in science is:

A. An instrument
B. A measuring unit
C. A proven law
D. A statement about what may happen under stated conditions
Muhammad Ali Photo State Zafarwal Page 11

ANSWER KEY

Check your answers only after completing all 200 MCQs.

Q.NO.	ANS.	Q.NO.	ANS.	Q.NO.	ANS.	Q.NO.	ANS.
1	C	51	C	101	D	151	D
2	D	52	A	102	B	152	D
3	C	53	B	103	A	153	D
4	B	54	B	104	A	154	C
5	B	55	D	105	A	155	B
6	B	56	D	106	A	156	D
7	A	57	C	107	B	157	C
8	C	58	D	108	A	158	C
9	C	59	B	109	A	159	C
10	C	60	C	110	B	160	A
11	A	61	A	111	A	161	A
12	A	62	D	112	D	162	C
13	A	63	D	113	B	163	A
14	D	64	A	114	D	164	D
15	D	65	C	115	A	165	B
16	A	66	B	116	A	166	D
17	A	67	D	117	C	167	D
18	B	68	A	118	B	168	C
19	D	69	C	119	B	169	D
20	B	70	B	120	B	170	C
21	A	71	B	121	B	171	D
22	A	72	A	122	A	172	A
23	A	73	B	123	C	173	C
24	A	74	C	124	A	174	B
25	B	75	A	125	D	175	C
26	B	76	C	126	A	176	B
27	B	77	C	127	C	177	C
28	A	78	D	128	B	178	C
29	A	79	A	129	A	179	A
30	C	80	C	130	A	180	A
31	B	81	D	131	B	181	C
32	C	82	D	132	D	182	B
33	D	83	A	133	B	183	B

34	C	84	B	134	D	184	A
35	D	85	A	135	B	185	C
36	A	86	A	136	C	186	C
37	B	87	B	137	A	187	A
38	C	88	C	138	D	188	A
39	B	89	A	139	D	189	A
40	D	90	B	140	C	190	B
41	C	91	B	141	C	191	A
42	B	92	A	142	C	192	B
43	A	93	A	143	A	193	D
44	D	94	D	144	A	194	D
45	B	95	B	145	B	195	A
46	A	96	D	146	C	196	B
47	B	97	D	147	C	197	B
48	A	98	D	148	C	198	C
49	A	99	A	149	D	199	A
50	D	100	C	150	B	200	D

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