

**NTSE 2013 - Delhi Region**  
**(For Class X Students)**  
**SAT (Paper-3)**  
 (Question Nos. 91 – 180)

**Time: 90 Min.**

**Max. Marks: 90**

91. A bulb of (220 V, 60 W) is operated on 110 V supply then power developed in it is  
 (1) 15 W (2) 30 W  
 (3) 65 W (4) 60 W

91. 1

Sol.  $P = \frac{V^2}{R}$   
 $\Rightarrow P \propto V^2$

92. A dichromatic light of wavelength 5600 Å and 6300 Å pass through a prism of crown glass. Then:  
 (1) deviation for both wavelengths is same.  
 (2) both will emerge without deviation.  
 (3) deviation for wavelength 5600 Å is greater than deviation for wavelength 6300 Å.  
 (4) deviation for wavelength 6300 Å is greater than deviation for wavelength 5600 Å.

92. 3

Sol. Smaller is wavelength of incident ray more is refractive index of material for this colour, hence more is deviation.

93. A convex lens is in contact with concave lens. The magnitude of the ratio of their focal length is  $\frac{2}{3}$ . Their equivalent focal length is 30 cm. What are their individual focal lengths (in cm).

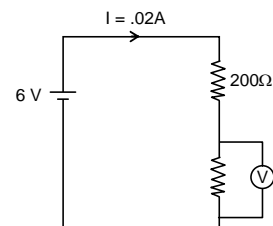
- (1) -75, +50 (2) +10, -15  
 (3) +75, -50 (4) -15, -10

93. 2

Sol.  $\frac{1}{f_{\text{eff}}} = \frac{1}{f_1} + \frac{1}{f_2}$   
 Put  $f_1 = 2f$   
 $f_2 = -3f$   
 Solving,  $f = 5$  cm.

94. The reading of ideal (V) connected across R in the circuit shown below is:

- (1) 1 V (2) 2 V  
 (3) 3 V (4) 4 V



94. 2

Sol. For complete circuit  
 $V = IR$   
 $6 = (0.02)(200 + R)$   
 $\Rightarrow R = 100 \Omega$   
 $\Rightarrow$  Reading of voltmeter =  $IR = (0.02)(100) = 2V$

95. An object starting from rest move on a straight road for time  $t$  and comes to rest finally. The distance is converted in two parts. In the first part it is accelerated at constant acceleration  $\alpha$  and then decelerate at rate  $\beta$ . Then maximum velocity is

- (1)  $\alpha t$  (2)  $\beta t$   
 (3)  $\left(\frac{\alpha + \beta}{2}\right)t$  (4)  $\left(\frac{\alpha\beta}{\alpha + \beta}\right)t$

95. 4

Sol.  $V = (0) + \alpha t_1 \dots(i)$   
 $0 = (\alpha t_1) + \beta t_2 \dots(ii)$   
 $t_1 + t_2 = t$   
 $\Rightarrow V = \left(\frac{\alpha\beta}{\alpha + \beta}\right)(t)$

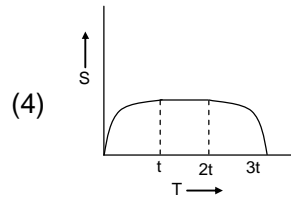
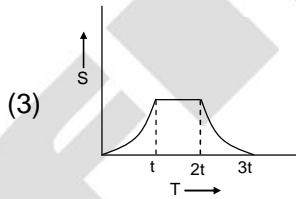
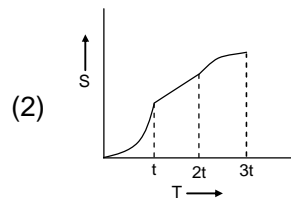
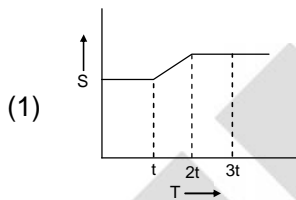
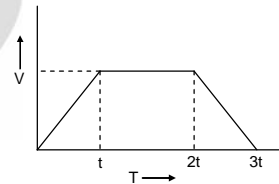
96. A person is standing in an elevator, in which situation he finds his weight less?

- (1) When the elevator moves upward with constant acceleration.  
 (2) When the elevator moves downward with constant acceleration.  
 (3) When elevator moves upward with uniform velocity.  
 (4) When elevator moves downward with uniform velocity.

96. 2

Sol. Let 'N' be normal force by elevator floor on man.  
 Then,  $mg - N = ma$  (Assuming downward acceleration)  
 $\Rightarrow N < mg$   
 Which matches with given condition in option (2).

97. Velocity-time graph of an object is  
 Displacement – Time graph is:



97. 2

Sol. Since velocity is always positive, displacement continuously increases which is shown only in option (2).

98. A source emits sound of frequency 600 Hz inside water. The frequency heard in air will be:  
 ( $V = 1500$  m/s in water and  $V = 300$  m/s in air).

- (1) 300 Hz (2) 120 Hz  
 (3) 600 Hz (4) 6000 Hz

98. 3

Sol. Frequency of sound depends upon source and is independent of medium.

99. When a charged particle in motion enters in a uniform magnetic field perpendicularly then its  
 (1) Speed changes (2) Velocity changes  
 (3) K.E. changes (4) Acceleration does not change
99. 2
- Sol. Charge will follow circular path with speed remaining same.
100. The frequency of seconds pendulum is  
 (1) 0.5 Hz (2) 1.0 Hz  
 (3) 2.0 Hz (4) 1.5 Hz
100. 1
- Sol. For seconds pendulum,  $T = 2$  sec  

$$f = \frac{1}{T} = 0.5 \text{ Hz}$$
101. The structure of solids is investigated by using  
 (1) Cosmic rays (2) X-rays  
 (3) Gamma rays (4) Infrared rays
101. 2
- Sol. X-Rays are used to investigate structure of solids.
102. Two bodies with kinetic energy in the ratio of 4 : 1 are moving with equal linear momentum. The ratio of their masses is  
 (1) 1 : 2 (2) 1 : 1  
 (3) 4 : 1 (4) 1 : 4
102. 4
- Sol. 
$$\frac{(K.E.)_1}{(K.E.)_2} = \frac{p^2 / 2m_1}{p^2 / 2m_2} = \frac{4}{1}$$

$$\Rightarrow \frac{m_1}{m_2} = \frac{1}{4}$$
103. Which one of the following is the smallest in size?  
 (1)  $N^{3-}$  (2)  $O^{2-}$   
 (3)  $F^-$  (4)  $Na^+$
103. 4
- Sol. Due to highest effective nuclear charge of sodium ion.
104. Which chemical substance is added to LPG to help in detection of its leakage?  
 (1) Isobutane (2) Ethanethiol  
 (3) Propane (4) Hydrogen sulphide
104. 2
- Sol. Ethanethiol or ethylmercaptan
105. Which of the following salt does not contains the water of crystallization?  
 (1) Blue Vitriol (2) Baking soda  
 (3) Washing soda (4) Gypsum
105. 2
- Sol.  $CuSO_4 \cdot 5H_2O$  (Blue Vitriol)  
 $NaHCO_3$  (Baking Soda)  
 $Na_2CO_3 \cdot 10H_2O$  (Washing Soda)  
 $CaSO_4 \cdot 2H_2O$  (Gypsum)
106. The ion of an element has 3 positive charge, 27 mass-number and 14 neutrons. What is the number of electrons in this ion?  
 (1) 13 (2) 14  
 (3) 10 (4) 16
106. 3

Sol. Given  
 3 positive charge  
 27 mass number  
 14 neutron  
 Mass number of any atom = No. of protons + No. of neutrons  
 $27 = \text{No. of protons} + 14$   
 No. of protons = 13  
 No. of protons in atom = No. of electrons in atom = 13  
 No. of electrons in ion =  $13 - 3 = 10$

107. Which one of the following is the natural fruit ripening hormone?

- (1) Ethane (2) Ethene  
 (3) Ethyne (4) Carbide

107. 2

Sol. Ethene is used as natural fruit ripening hormone.

108. Which of the following contains acidic hydrogen?

- (1) Ethene (2) Ethane  
 (3) Ethyne (4) But-2-yne

108. 3

Sol.  $\text{H}-\text{C}\equiv\text{C}-\text{H}$



Sp hybridised carbon

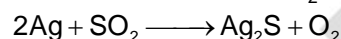
Due to 50% s character carbon becomes more electronegative and acidic. So  $\text{H}^+$  ion will release easily.

109. Silver jewellery becomes black on prolonged exposure to air, It is due to the formation of

- (1)  $\text{Ag}_3\text{N}$  (2)  $\text{Ag}_2\text{O}$   
 (3)  $\text{Ag}_2\text{S}$  and  $\text{Ag}_3\text{N}$  (4)  $\text{Ag}_2\text{S}$

109. 4

Sol. Silver combines with  $\text{SO}_2$  in air to give silver sulphide



110. What is the mass of oxygen required to react completely with 15 g of  $\text{H}_2$  gas to form water?

- (1) 140 g (2) 115 g  
 (3) 107.5 g (4) 120 g

110. 4

Sol.  $2\text{H}_2 + \text{O}_2 \longrightarrow 2\text{H}_2\text{O}$

4 g Hydrogen takes up 32 g oxygen

15 g Hydrogen takes up  $\frac{32}{4} \times 15 = 120$  g oxygen.

111. Percentage purity of a sample of gold is 85%. How many atoms of gold are present in its 1 gram sample? (Atomic mass of gold = 197 u)

- (1)  $2.6 \times 10^{21}$  (2)  $2.6 \times 10^{23}$   
 (3)  $3.0 \times 10^{21}$  (4)  $4.5 \times 10^{20}$

111. 1

Sol. 85% gold in 1 gram sample

0.85 g gold is present in 1 gram sample

197 g of gold =  $6.022 \times 10^{23}$  atoms of gold

$$0.85 \text{ g of gold} = \frac{6.022 \times 10^{23}}{197} \times .85 = 2.6 \times 10^{21}$$

112. The volume of 1 mole of an ideal gas at  $25^\circ\text{C}$  temperature and 1 bar pressure is:

- (1) 22.4 L (2) 22.7 L  
 (3) 24.8 L (4) 24.4 L

112. 3  
Sol.  $PV = nRT$   
 $V = \frac{1 \times 0.0821 \text{ L atm mol}^{-1} \text{ K}^{-1} \times 298 \text{ K}}{0.987 \text{ atm}}$  [1 bar = 0.987 atm]  
 $V = 24.8 \text{ L}$
113. Which of the following solution can be stored in aluminium container?  
(1)  $\text{MgSO}_4(\text{aq})$  (2)  $\text{ZnSO}_4(\text{aq})$   
(3)  $\text{CuSO}_4(\text{aq})$  (4)  $\text{FeSO}_4(\text{aq})$
113. 1  
Sol. Aluminium is less reactive than 'Mg' (Magnesium).  
 $\therefore$  It can't displace Mg from its salt  $\text{MgSO}_4$ .
114. The cell organelle in which hydrolytic enzymes are stored is:  
(1) Plastid (2) Mitochondria  
(3) Centrosome (4) Lysosome
114. 4  
Sol. Lysosome carry the hydrolytic enzymes.
115. Choose the incorrect statement about insulin:  
(1) Deficiency of insulin leads to diabetes.  
(2) It regulates the growth and development of the body.  
(3) It controls sugar level in the blood.  
(4) It is produced from the pancreas.
115. 2  
Sol. Insulin secreted by pancreas it converts the glucose in to glycogen and by this it controls the sugar level in the blood and deficiency of insulin leads to diabetes.
116. The animal which belongs to class pisces is:  
(1) Silver fish (2) Jelly fish  
(3) Star fish (4) Dog fish
116. 4  
Sol. Dog fish (scoliodon) belongs to class pisces.
117. Most of the plants absorb nitrogen in the form of:  
(1) Uric acid (2) Amino acids  
(3) Atmospheric nitrogen (4) Nitrates and Nitrites
117. 4  
Sol. Nitrogen fixing bacteria converts atmospheric  $\text{N}_2$  into nitrite and nitrate and makes it available for the plants.
118. In a synapse, the chemical signal is transmitted from:  
(1) axonal end of a neuron to dendritic end of another neuron.  
(2) axonal end to the cell body of the same neuron.  
(3) Cell body to axonal end of the same neuron.  
(4) dendritic end of one neuron to axonal end of another neuron.
118. 3  
Sol. Junction between two Neuron is known as synapse. In the synapse the chemical signal is transmitted from cell body to axonal end of the same Neuron.
119. After pollination, the growth of pollen tube on stigma toward ovule is due to:  
(1) Phototropism (2) Chemotropism  
(3) Hydrotropism (4) Geotropism
119. 2  
Sol. After reaching on stigma the pollen grain develops a pollen tube towards ovule because of chemical reactions (chemotropism).

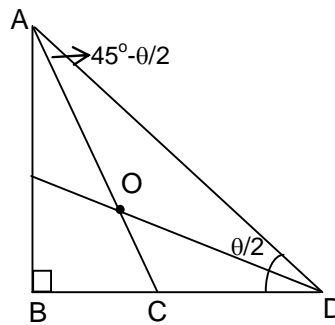
120. Oxygen present in the glucose molecule formed during photosynthesis is obtained from:  
 (1) Water molecule (2) Carbondioxide molecule  
 (3) Chlorophyll (4) Oxygen in air
120. 2  
 Sol. The  $O_2$  present in  $CO_2$  molecule is used in the formation of glucose molecule during calvin Benson cycle of photosynthesis.
121. Which of the following has extranuclear DNA:  
 (1) Mitochondria (2) Lysosomes  
 (3) Golgi Complex (4) Rough Endoplasmic reticulum
121. 1  
 Sol. In Eukaryotic cells DNA is present in the Nucleus, Mitochondria and Plastids (plant).
122. Conversion of one molecule of glucose into two molecules of pyruvic acid takes place in :  
 (1) Cytoplasm (2) Mitochondria  
 (3) Endoplasmic reticulum (4) Golgi bodies
122. 1  
 Sol. Inside the cytoplasm the one molecule of glucose converted in to two molecules of pyruvic acid after glycolysis.
123. Dead cells of cork contain a chemical in their wall that makes them impervious to gases and water. The chemical is :  
 (1) Lignin (2) Suberin  
 (3) Mucilage (4) Sucrose
123. 2  
 Sol. Suberin is a chemical which is present in the wall of cork which makes them impervious to gases and water.
124. Peculiar water driven tube system is the unique feature of the following group:  
 (1) Echinodermata (2) Arthropoda  
 (3) Annelida (4) Platyhelminthes
124. 1  
 Sol. Water vascular system is typical characteristic of echinodermata and it performs most of their physiological activities.
125. In an accident, two long bones of a person are dislocated. The possible reason may be the:  
 (1) Breakage of Skeletal muscles (2) Breakage of Tendon  
 (3) Breakage of Smooth muscles (4) Breakage of Ligament
125. 4  
 Sol. Ligament is a connective tissue which connects two bones.
126. If the length of a square is  $(a + b)$ , then the area of the square will be :  
 (1)  $(a + b)^2$  (2)  $\frac{1}{2}(a + b)^2$   
 (3)  $(a^2 + b^2)$  (4)  $\frac{1}{2}(a^2 + b^2)$
126. 2  
 Sol. diagonal =  $\sqrt{2}$  side  
 or side =  $\frac{a + b}{\sqrt{2}}$   
 Area = side<sup>2</sup> =  $\left(\frac{a + b}{\sqrt{2}}\right)^2 = \frac{(a + b)^2}{2}$ .

127. The angle between the bisectors of the two acute angles of a right angle triangle is:

- (1)  $90^\circ$  (2)  $112\frac{1}{2}^\circ$   
 (3)  $135^\circ$  (4)  $120^\circ$

127. 3

Sol.  $\angle AOD = 135^\circ$



128. The average rainfall for a week excluding Sunday was 0.5 cm. Due to heavy rainfall on Sunday, the average for the week rose to 1.5 cm. The rainfall on Sunday was;

- (1) 6.5 cm. (2) 7.5 cm.  
 (3) 8.5 cm. (4) 8.0 cm.

128. 2

Sol.  $1.5 \times 7 - 6 \times 0.5 = 7.5$ .

129. The area of the largest triangle that can be inscribed in a semi-circle of radius 'r' is:

- (1)  $r^2$  (2)  $r^3$   
 (3)  $2r^2$  (4)  $\frac{1}{2}r^2$

129. 1

Sol. The largest triangle is isosceles triangle and Area =  $\frac{1}{2}r^2 \times 2 = r^2$

130. A rational number between  $\sqrt{2}$  and  $\sqrt{3}$  is:

- (1) 1.5 (2)  $\frac{\sqrt{2} + \sqrt{3}}{2}$   
 (3)  $\sqrt{2} \times \sqrt{3}$  (4) 1.8

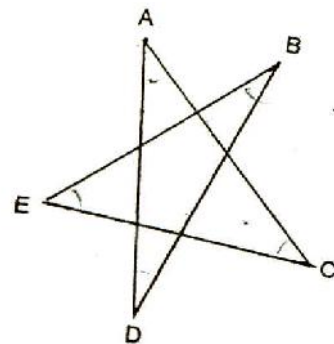
130. 1

Sol.  $\sqrt{2} = 1.414, \sqrt{3} = 1.732$

Clearly 1.5 lies between them.

131. In the given figure:  $\angle A + \angle B + \angle C + \angle D + \angle E$  is equal to:

- (1)  $360^\circ$  (2)  $180^\circ$   
 (3)  $150^\circ$  (4)  $90^\circ$



131. 2

Sol. Sum of the angle =  $180^\circ$

132. If the radius of a circle is a rational number, its area is given by a number which is :  
 (1) Irrational (2) Rational  
 (3) Integral (4) A perfect square

132. 1

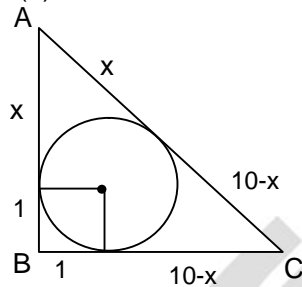
Sol. Since,  $\pi$  is irrational and product of rational and irrational is irrational.

133. The Hypotenuse of a right angle triangle is 10 cm. and the radius of the inscribed circle is 1 cm. The perimeter of the triangle is :

- (1) 15 cm. (2) 22 cm.  
 (3) 24 cm. (4) 26 cm.

133. 2

Sol. Perimeter = 22 cm



134. A hemispherical depression is cut out from one face of a cubical wooden block such that the diameter (D) of the hemisphere is equal to the edge of the cube. The surface area of the remaining solid is:

- (1)  $\frac{1}{4}(\pi + 24)D^2$  (2)  $\pi D^2$   
 (3)  $(\pi - 4)D$  (4)  $(\pi + 24)(2D)$

134. 1

Sol. Surface area of remaining solid =  $5D^2 + 2\pi\left(\frac{D}{2}\right)^2 + \left[D^2 - \pi\left(\frac{D}{2}\right)^2\right] = \frac{1}{4}(\pi + 24)D^2$ .

135. The value of  $2.\overline{4178}$  is :

- (1)  $\frac{24151}{9990}$  (2)  $\frac{24151}{990}$   
 (3)  $\frac{24154}{9990}$  (4)  $\frac{24155}{9990}$

135. 3

Sol.  $2 + \frac{4178 - 4}{9990}$   
 $2 + \frac{4174}{9990} = \frac{24154}{9990}$ .

136. If n is a natural number, then which number always ends at 6 from the following?

- (1)  $4^n$  (2)  $2^n$   
 (3)  $6^n$  (4)  $8^n$

136. 3

Sol.  $6^n$  = unit digit is always 6, for any value of n.

137. A number is increased by 10% and then it is decreased by 10%. The net increase or decrease percent is

- (1) 3% (2) 4%  
 (3) 2% (4) 1%

137. 4

Sol. Let number = 100



$$\text{New number} = \frac{100 \times 110 \times 90}{100 \times 100} = 99.$$

$$100 - 99 = 1\% \text{ decrease.}$$

138. A card is drawn from a well-shuffled deck of 52 cards at random. The probability that the card is neither a heart nor a king is :

- (1)  $\frac{9}{13}$  (2)  $\frac{17}{52}$   
 (3)  $\frac{35}{52}$  (4)  $\frac{4}{13}$

138. 1

Sol. Required probability =  $\frac{9}{13}$ .

139. The angles of elevation of the top of a tower from two points at distances 'a' and 'b' metres from the base and in the same straight line with it, are complementary. The height of the tower is:

- (1) ab metres (2)  $\sqrt{ab}$  metres  
 (3)  $\frac{a}{b}$  metres (4) (a + b) metres

139. 2

Sol.  $\tan(90^\circ - \theta) = \frac{AB}{a}$

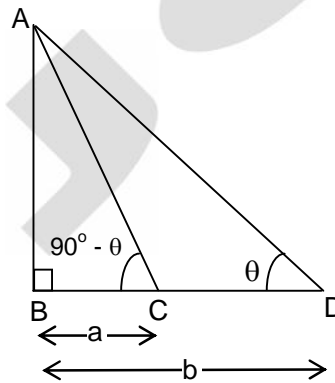
$$AB = a \cdot \cot \theta$$

Again,  $\tan \theta = \frac{AB}{b}$

$$AB = b \tan \theta$$

$$AB^2 = ab$$

$$AB = \sqrt{ab}$$



140. The value of  $\cot 12^\circ \cot 38^\circ \cot 52^\circ \cot 60^\circ \cot 78^\circ$  is :

- (1) 1 (2) 0  
 (3)  $\frac{1}{\sqrt{2}}$  (4)  $\frac{1}{\sqrt{3}}$

140. 4

Sol.  $\cot 12^\circ \cdot \cot 38^\circ \cdot \cot 52^\circ \cdot \cot 60^\circ \cdot \cot 78^\circ$   
 $= \cot 12^\circ \cdot \cot 38^\circ \cdot \tan 38^\circ \cdot \frac{1}{\sqrt{3}} \cdot \tan 12^\circ$   
 $= \frac{1}{\sqrt{3}}$

141. AB is a line segment and M is its mid point. Semi-circles are drawn with AM, MB and AB as diameters on the same side of AB. A circle is drawn to touch all the three semi-circles. Its radius is :

- (1)  $\frac{AB}{3}$  (2)  $\frac{2}{3}AB$   
 (3)  $\frac{AB}{6}$  (4)  $\frac{3}{4}AB$

141. 3

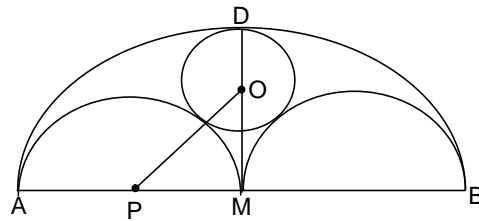
Sol. Let  
 $AB = x$  &  $OD = r$

then,  $MD = \frac{x}{2}$

$OM = \frac{x}{2} - r$

$OM^2 + MP^2 = OP^2 = \left(\frac{x}{2} - r\right)^2 + \frac{x^2}{16} = \left(\frac{x}{4} + r\right)^2$

$r = \frac{x}{6} = \frac{AB}{6}$

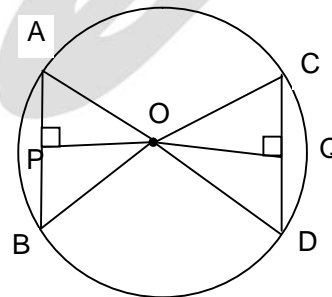


142. AB and CD are two equal chords of a circle with centre at O. If  $OP \perp AB$  and  $OQ \perp CD$ , where P and Q are points on the chords AB and CD respectively and if  $\angle POQ = 100^\circ$ , the measure of  $\angle APQ$  is :

- (1)  $45^\circ$
- (2)  $50^\circ$
- (3)  $60^\circ$
- (4)  $80^\circ$

142. 2

Sol.  $AB = CD$ , hence  $OP = OQ$ , Given  $\angle POQ = 100^\circ$   
 then  $\angle OPQ = 40^\circ$   
 $\angle APQ = 130^\circ$   
 If we interchange positions of A & B.  
 $\angle APQ = 50^\circ$ .

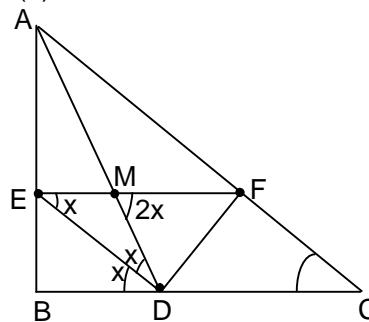


143. In  $\triangle ABC$ , D is the mid point of BC and ED is the bisector of  $\angle ADB$ . If EF  $\parallel$  BC meeting AC in F. The measure of  $\angle EDF$  is :

- (1)  $80^\circ$
- (2)  $90^\circ$
- (3)  $110^\circ$
- (4)  $120^\circ$

143. 2

Sol. Let  $\angle ADE = \angle EDB = x$   
 then,  $\angle DMF = 2x$   
 i.e., M is the circumcentre of  $\triangle EDF$   
 $\therefore \angle DFM = \angle MDF = 90^\circ - x$   
 $\Rightarrow \angle EDF = 90^\circ$



144. If the sum of first n terms of an A.P. is  $2n^2 - n + 1$ , then the tenth term of this A.P. is :

- (1) 36
- (2) 37
- (3) 38
- (4) 39

144. 2

Sol.  $t_{10} = S_{10} - S_9 = 37$

145. A says to B, "I was four times as old as you were when I was as old as you are. "If the sum of their present ages is 33, then the present ages of A and B respectively are :

- (1) 18 years, 15 years
- (2) 21 years, 12 years
- (3) 24 years, 9 years
- (4) 27 years, 6 years

145. 2

Sol. Let ages of A & B are A & B resp.

$$\text{then } A - (A - B) = 4(B - A + B)$$

$$\Rightarrow A = \frac{7B}{4}$$

$$B + \frac{7B}{4} = 33 \Rightarrow B = 12$$

So, A = 21.

146. Who was Confucius?

- (1) A Chinese Philosopher (2) King of Tibet  
(3) Religious leader of Japan (4) Disciple of Dalai Lama

146. 1

Sol. Confucius was a Chinese Philosopher.

147. What was Barbarossa Operation ?

- (1) It was a plan to stop World War-II  
(2) Name of Germany's invasion of Russia during World War-II  
(3) Name of treaty between Germany and Russia  
(4) A secret meeting of central forces

147. 2

Sol. Barbarossa operation was the name of Germany's invasion on Russia during World War – II.

148. Who was the King of England during First Round Table Conference :

- (1) Edward VII (2) George IV  
(3) George V (4) James II

148. 3

Sol. George-V was the King of England during first round table conference.

149. In the first world war, which country was not indulged in allied powers :

- (1) Britain (2) Austria  
(3) France (4) Russia

149. 2

Sol. Austria was not indulged in allied powers in the First World War.

150. Of which revolution was the motto "Liberty Equality and Fraternity"

- (1) The Britain Revolution (2) The American Revolution  
(3) The Russian Revolution (4) The French Revolution

150. 4

Sol. Liberty, Equality and Fraternity was the motto of French Revolution.

151. Mahatma Gandhi's Dandi March was associated with:

- (1) Quit India Movement (2) Individual Satyagraha Movement  
(3) Non-cooperation Movement (4) Civil Disobedience Movement

151. 4

Sol. Mahatma Gandhi's Dandi March was associated with Civil Disobedience Movement.

152. The Lahore Congress Session was famous for

- (1) Local self government (2) Complete independence  
(3) Fundamental rights (4) Constitution assembly

152. 2

Sol. The Lahore Congress Session was famous for complete independence.

153. Who read the inscription on pillar of Emperor Ashoka?

- (1) James Prinsep (2) William Jones  
(3) D.D Kosambi (4) Ferguson

153. 1

- Sol. The inscription on pillar of Emperor Ashoka was read by James Prinsep.
154. Great Bath in Harappa Civilization was situated in:  
 (1) Lothal (2) Harappa  
 (3) Mohanjodaro (4) Kalibanga
154. 3  
 Sol. Great Bath in Harappa Civilization was situated in Mohanjodaro.
155. Din-e-Elahi, a new religion was introduced by  
 (1) Jahangir (2) Akbar  
 (3) Babar (4) Shershah
155. 2  
 Sol. Din-e-Elahi was a new religion introduced by Akbar.
156. Which one of the following metal can be obtained from bauxite?  
 (1) Aluminium (2) Copper  
 (3) Iron (4) Silver
156. 1  
 Sol. Aluminium can be obtained from bauxite ( $Al_2O_3$  – Bauxite)
157. Which type of drainage pattern is formed, when river and its tributaries resemble the branches of a tree.  
 (1) Dendritic (2) Radial  
 (3) Trellis (4) Rectangular
157. 1  
 Sol. A dendritic pattern is formed when river and its tributaries resemble the branches of a tree.
158. Which one of the following types of vegetation does 'rubber' belong to  
 (1) Tundra (2) Tidal  
 (3) Himalayan (4) Tropical Evergreen
158. 4  
 Sol. Rubber belongs to tropical evergreen region.
159. Tropic of cancer  $\left(23\frac{1}{2}^{\circ}N\right)$  does not pass through which state of India?  
 (1) Rajasthan (2) Chattisgarh  
 (3) Odisha (4) Tripura
159. 3  
 Sol. Tropic of cancer does not pass through Odisha.
160. Which one of the following describe a system of agriculture where a single crop is grown on a large area:  
 (1) Shifting agriculture (2) Horticulture  
 (3) Plantation agriculture (4) Intensive agriculture
160. 3  
 Sol. In plantation agriculture a single crops is grown on a large area.
161. Which one of the following Iron and Steel plant is located in Odisha?  
 (1) Durgapur (2) Bokaro  
 (3) Rourkela (4) Jamshedpur
161. 3  
 Sol. In Odisha, a steel plant is located in Rourkela.

162. Which of the following facts is not true about Laterite soils of India?  
 (1) They form as a result of the process of leaching  
 (2) Cashewnuts can be grown in this soil  
 (3) They have high content of organic matter in them  
 (4) Potash is found in excess in these soils
162. 3  
 Sol. There is a low content of organic matter in Laterite soil.
163. Which of the following dams is not a part of Damodar Valley Project?  
 (1) Panchet (2) Tilaiyya  
 (3) Mettur (4) Maithon
163. 3  
 Sol. Mettur is not a part of Damodar Valley Project.
164. Which mountainous state faced severe flooding in June 2013.  
 (1) Sikkim (2) Jammu and Kashmir  
 (3) Uttarakhand (4) Arunachal Pradesh
164. 3  
 Sol. Recently, Uttarakhand faced severe flooding.
165. Which of the following energy is produced from a non-sustainable source?  
 (1) Thermal energy (2) Solar energy  
 (3) Wind energy (4) Geo-thermal
165. 1  
 Sol. Thermal energy is produced from a non-sustainable source(coal).
166. According to the constitution of India, who has the power to Legislate on the subject 'Computer Software'?  
 (1) The Union Government (2) The State Governments  
 (3) Both the above (4) None of the above
166. 1  
 Sol. The Union government has the power to legislate on the subject Computer Software (Residuary Power)
167. Who was the King of Nepal in 2006 during the 'second movement for democracy'?  
 (1) King Virendra (2) King Gyanendra  
 (3) King Vijendra (4) King Tejendra
167. 2  
 Sol. King Gyanendra was the King of Nepal in 2006 during the second movement of democracy.
168. Which of the following people movement later converted into a political party?  
 (1) Assam Movement (2) Chipko Movement  
 (3) Narmada Bachao Aandolan (4) All of the above
168. 1  
 Sol. Assam movement later converted into a political party.
169. What is the ideological orientation of the India National Congress?  
 (1) Rightist (2) Leftist  
 (3) Centrist (4) None of the above
169. 3  
 Sol. The orientation of the Indian National Congress is centrist.
170. The Centre-State power distribution in India is similar to  
 (1) Spain (2) USA  
 (3) Switzerland (4) Australia
170. 1  
 Sol. The Centre-State powers distribution in India is similar to Spain.

171. Seats are reserved for women in:  
 (1) Parliament (2) State Legislature  
 (3) Panchayati Raj Institution (4) Rajya Sabha
171. 3  
 Sol. Seats are reserved for women in Panchayati Raj institution.
172. Medha Patekar is the leader of which movement  
 (1) Women Movement (2) Chipko Movement  
 (3) Narmada Bachao Aandolan (4) Social Movement
172. 3  
 Sol. Medha Patekar is the leader of Narmada Bachao Andolan.
173. In which country 'Seven Party Alliance' formed by major parties in:  
 (1) Bhutan (2) Nepal  
 (3) Srilnka (4) Bolivia
173. 2  
 Sol. Seven Party Alliance (SPA) was formed in Nepal.
174. A democratic Government is responsible to:  
 (1) President (2) Prime Minister  
 (3) Chief Justice of India (4) The people
174. 4  
 Sol. A democratic government is responsible to the people.
175. Which of the following is a challenge to Democracy?  
 (1) Leader (2) Illiterate Citizens  
 (3) Political Parties (4) Election
175. 2  
 Sol. Illiterate citizens are the big challenge to democracy.
176. The formula of calculate BMI is  
 (1)  $\frac{\text{Kg}}{(\text{cm})^2}$  (2)  $\frac{\text{Kg}}{(\text{m})^2}$   
 (3)  $\frac{\text{g}}{(\text{Inch})^2}$  (4)  $\frac{\text{Kg}}{(\text{Inch})^2}$
176. 2  
 Sol. BMI is the ratio of  $\frac{\text{Kg}}{(\text{m})^2}$ .
177. In India, the NREGA (2005) reserves 1/3 proposed employment for;  
 (1) Women (2) Men  
 (3) Urban Women (4) Poor
177. 1  
 Sol. In India NREGA (2005) reserves 1/3 proposed employment for women.
178. 'Problem of double coincidence of wants' is removed because money acts as  
 (1) Medium of exchange (2) Store of value  
 (3) Measurement of value (4) Mode of deffered payment
178. 1  
 Sol. Money as a medium of exchange removed the problem of double coincidence of wants.
179. WTOs means:  
 (1) World Technical Organisation (2) World Trade Organisation  
 (3) World Television Organisation (4) World Technology Organisation
179. 2

Sol. WTO stands for World Trade Organization.

180. National Consumer day is celebrated on:

(1) 24<sup>th</sup> December

(2) 29<sup>th</sup> January

(3) 05<sup>th</sup> March

(4) 15<sup>th</sup> September

180. 1

Sol. National Consumer Day is observed on 24<sup>th</sup> December.

