

Solutions for NTSE2009

Reasoning

Solutions for questions 1 to 45:

1. $8^{+3}, 11^{+6}, 17^{+9}, \frac{26^{+12}}{38}$ Choice (4)

2. $80^{-15}, \frac{65^{-15}}{50}, 50^{-15}, 35^{-15}, 20$ Choice (5)

3. $3^{+2}, 5^{+2^2}, 9^{+2^3}, \frac{17^{+2^4}}{33}$ Choice (2)

4. $4^{\times 5}, 20^{\times 5}, \frac{100^{\times 5}}{500}, 500^{\times 5}, 2500$ Choice (1)

5. $2, 5, \begin{matrix} 7 \\ \wedge \\ (2+5) \end{matrix}, \begin{matrix} 12 \\ \downarrow \\ (5+7) \end{matrix}, \begin{matrix} 19 \\ \downarrow \\ (12+7) \end{matrix}, \begin{matrix} 31 \\ \downarrow \\ (19+12) \end{matrix}$ Choice (2)

6. $3^{\times 2}, 6^{\times 3}, 18^{\times 4}, \frac{72^{\times 5}}{360}$ Choice (3)

7. $15^{+10}, 25^{+20}, 45^{+30}, \frac{75^{+40}}{115}$ Choice (5)

8. $3^{\times 5}, 15^{\times 4}, 60^{\times 3}, \frac{180^{\times 2}}{360}$ Choice (1)

9. $64^{+2}, 32^{+2}, 16^{+2}, \frac{8^{+2}}{4}$ Choice (4)

10. $3^{+9}, 12^{+9}, 21^{+9}, \frac{30^{+9}}{39}$ Choice (3)

11. $\begin{matrix} B & C & D & & P & Q & R \\ +5 & +5 & +5 & \text{similarly} & +5 & +5 & +5 \\ G & H & I & & U & V & W \end{matrix}$ Choice (1)

12. $\begin{matrix} A & D & & M & P \\ +6 & +6 & \text{similarly} & +6 & +6 \\ G & J & & S & V \end{matrix}$ Choice (3)

20. $\begin{matrix} Z, X & W, U & T & S, Q & P & O & N, L & K & J & I & H \\ -2 & -1 & -2 & -1 & -1 & -2 & -1 & -1 & -1 & -1 & -2 & -1 & -1 & -1 & -1 \end{matrix}$ Choice (5)

21. $\begin{matrix} A & B, D & F, H & K, M & Q, S & X \\ +2 & +2 & +2 & +2 & & \\ +1 & +2 & +3 & +4 & +5 & \end{matrix}$ Choice (4)

22. $\begin{matrix} & -3 & -4 & -5 & -6 \\ Z & Y, X & V, U & R, Q & M, L & G \\ -2 & -3 & -4 & -5 & & \end{matrix}$ Choice (1)

13. $\begin{matrix} B & D & E & & N & P & Q \\ +7 & +7 & +7 & \text{similarly} & +7 & +7 & +7 \\ I & K & L & & U & W & X \end{matrix}$ Choice (5)

14. $\begin{matrix} V & U & & P & O \\ -3 & -3 & \text{Similarly} & -3 & -3 \\ S & R & & M & L \end{matrix}$ Choice (1)

15. $\begin{matrix} A & B & C & D & & I & J & K & L \\ +2 & +2 & +2 & +2 & \text{Similarly} & +2 & +2 & +2 & +2 \\ C & D & E & F & & K & L & M & N \end{matrix}$ Choice (3)

16. $\begin{matrix} A & D & G & J & M & P \\ +3 & +3 & +3 & +3 & +3 & \end{matrix}$ Choice (4)

17. $\begin{matrix} B & G & K & N & P \\ +5 & +4 & +3 & +2 & \end{matrix}$ Choice (2)

18. $\begin{matrix} & -2 & & -2 & & -2 & & -2 \\ Z & A, X & B, V & C, T & D, R & E \\ +1 & +1 & +1 & +1 & \end{matrix}$ Choice (4)

19. $\begin{matrix} & +3 & & +3 & & +3 & & +3 \\ A & C, D & F, G & I, J & L, M & O \\ +3 & +3 & +3 & +3 & \end{matrix}$ Choice (2)

23. $\begin{matrix} & +1 & & +1 & & +1 & & +1 \\ A & F & K, B & G & L, C & H & M, D & I & N, E & J & Q \\ +1 & +1 & +1 & +1 & \end{matrix}$ Choice (1)

24. $\begin{matrix} & -1 & & -1 & & -1 & & -1 \\ X & W & V, W & V & U, V & U & T, U & T & S & T & S & R \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & \end{matrix}$ Choice (3)

$$\begin{array}{cccccccccccc}
 25. & A & , & C & D & , & G & H & I & , & M & N & O & P & , & U & V & W & X & Y \\
 & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} & \underbrace{\hspace{1em}} \\
 & +2 & & +1 & +3 & & +1 & +1 & +4 & & +1 & +1 & +1 & +1 & & +5 & & & & & &
 \end{array}$$

- Choice (5)
26. "Fair" comes first when arranged in alphabetical order.
Choice (5)
27. "Camel" comes first when arranged in alphabetical order.
Choice (2)
28. "Rail" comes first when arranged in alphabetical order.
Choice (5)
29. "Bat" comes first when arranged in alphabetical order.
Choice (2)
30. "Shade" comes first when arranged in alphabetical order.
Choice (4)
31. Jug is the odd one out as all others have legs.
Choice (5)
32. Asia – it is a continent, but all others are countries.
Choice (4)
33. Orissa – it is a state, all others are cities / towns.
Choice (2)
34. Intestine – it is an internal organ whereas all others are external organs.
Choice (2)
35. Eagle – it is a bird, all others are animals.
Choice (3)
36. Potato – it is a vegetable, all others are fruits.
Choice (1)
37. Ravidranath Tagore – he is not a scientist.
Choice (1)
38. M.P.P – does not mean any thing.
Choice (3)
39. Yard – it is not a M.K.S unit.
Choice (3)
40. Character – is not an aspect of a human being.
Choice (4)
41. Pooja is done in temples and study is related to school.
Choice (5)
42. Hyderabad is the capital of A.P, Ahmedabad is the capital of Gujarat.
Choice (5)
43. Ramgopal Verma is a producer hence related to cinema, similarly Anil Ambani is an industrialist, hence related to industry.
Choice (1)
44. Raja Ram Mohan Roy is related to social reforms.
Choice (2)
45. Valmiki wrote Ramayana, Ravindranath Tagore wrote Gitanjali.
Choice (1)

Solutions for questions 46 to 50:

46. Village is a part of Mandal, Mandal is a part of District.
Choice (3)
47. Some men are lawyers and some men are engineers.
Choice (4)
48. Some women are doctors and no child is a doctor or women.
Choice (1)

49. 100 centimeter = 1 meter.
1000 meters = 1 kilometer.
Choice (3)

50. All senior citizens are citizens. Some senior citizen and some citizen are educated.
No choice is given.

Solutions for questions 51 to 61:

51. Some boys can be players as well as singers.
Choice (5)
52. 'b' are students who are players but not artists.
Choice (3)
53. 'd' are artists who are students but not players.
Choice (1)
54. 'f' are players who are artists but not students.
Choice (4)
55. 'e' are students, players and artists.
Choice (3)
56. 'g' are artists who are neither students nor players.
Choice (2)
57. DEAH = 4518
Choice (3)
58. GFEAC = 76513
Choice (1)
59. AHDE = 1845
Choice (5)
60. IGECA = 97531
Choice (2)
61. HDDAB = 84412
Choice (4)

Solutions for questions 62 to 66:

If CHEST = 45723
BALL = 6899
then the letters & codes are corresponding to each other i.e. for C its code is 4, for H it is 5...

62. Code for CAT = 483
Choice (2)
63. Code for HALL = 5899
Choice (4)
64. Code for EAST = 7823
Choice (3)
65. BELT = 6793
Choice (1)
66. LAST = 9823
Choice (5)

Solutions for questions 67 to 71:

67. $(205 \times 4) + 2 = 820 + 2 = 822$
Choice (2)
68. $(12 - 3)^2 - 9 = (9)^2 - 9 = 81 - 9 = 72$
Choice (5)
69. $\sqrt{25} + n = 10$
 $\Rightarrow 5 + n = 10$
 $n = 10 - 5 = 5$
Choice (1)
70. $81 - (27 + 14) = 81 - 41 = 40$
Choice (3)
71. $7531 - n = 3120$
 $\Rightarrow n = 7531 - 3120$
 $\Rightarrow n = 4411$
Choice (3)
72. 0.05×0.001
 $= \frac{5}{100} \times \frac{1}{1000} = \frac{5}{1,00,000} = 0.00005$
Choice (2)

73. $30\% \text{ of } 60 = \frac{30}{100} \times 60 = \frac{1800}{100} = 18$ Choice (4)
74. $\frac{4949}{7} = 707$ Choice (1)

Solutions for questions 75 to 80:

75. The internal lines are eliminated from figure A to figure B. The same is true if figure 1 is considered. Choice (1)
76. The shades are unshaded. The same is true if figure 2 is considered. Choice (2)
77. The complete figure is rotated by 180° . This is true in figure 3. Choice (3)
78. The new figure is added with out any internal element. The same is true in figure 4. Choice (4)
79. A new element '⊗' appears from figure A to figure B. The same is true if figure 5 is considered. Choice (5)
80. The figure is rotated by 90° in clock wise direction from A to C, so the solution is figure 5. Choice (5)

Solutions for questions 81 to 84:

81. Except figure 3 all the other figures contains horizontal lines. Choice (3)
82. Except figure 1 all the other figures are partitioned into two parts. Choice (1)
83. All the figures contain the same element inside them as that of the main figure, except in figure 5. Choice (5)
84. Except in figure 2 all the other elements are connected. Choice (2)

Solutions for questions 85 to 90:

85. The number of triangles are increased by 1 from A to B. So figure 4 is the answer. Choice (4)
86. From A to B a new square is added, so figure 4 is the answer figure. Choice (4)
87. Lower half of figure B is figure A. The same is true if figure 1 is considered. Choice (1)
88. The number of internal elements is increased by one so figure 5 is next in the series. Choice (5)
89. The number of squares are increasing by one so figure 1 is next in the series. Choice (1)
90. An element is added in every figure and it is external to the center figure. Figure 2 follows the series. Choice (2)

Physics

91. Galvanometer is used to detect current in a circuit. Choice (1)
92. A passenger standing in a moving bus has inertia of motion. When the bus stops suddenly, his legs come to rest immediately, but his upper part of the body, due to inertia of motion moves forward and hence the person leans forward. Choice (1)

93. The number of images formed when two mirrors are placed at an angle ' θ ' is given by $n = \frac{360}{\theta}$, when

$$\frac{360}{\theta} \text{ is odd}$$

$$= \frac{360}{\theta} - 1, \text{ when } \frac{360}{\theta} \text{ is even.}$$

$$\theta = 90^\circ \Rightarrow \frac{360}{90} = 4 \text{ (even)}$$

$$\therefore n = \frac{360}{\theta} - 1$$

$$\theta (n + 1) = 360$$

$$\theta (n + 1) = 90 \times 4$$

$$\theta n + \theta = 90 \times 4$$

$$\frac{\theta}{4} + \frac{n\theta}{4} = 90 \quad \text{Choice (3)}$$

94. Tungsten is the heating element, used as the filament in an electric bulb. Choice (4)
95. The variable gas in an average composition of the atmosphere upto an attitude of 25 km is argon. Choice (1)
96. Knowledge accumulated due to continuous observation of facts, experimentation and the systematic study results in research and development. Choice (3)
97. (density) gcm^{-3} is the unit of a scalar quantity among the given options. Choice (3)
98. Limestone and clay are the raw materials used in the manufacture of Portland cement. Choice (2)
99. Christian Huygens proposed the wave theory of light. Choice (2)
100. When the object is placed between infinity and the pole (p) of the convex mirror, the image will be always formed between pole (p) and focus (f). Choice (1)
101. Umbra and penumbra are clearly formed when the source of light is small and the opaque object is big. Choice (2)
102. Length of the glass rod = 80.5 mm = 8.05 cm.
 \therefore Mid point of the glass rod = $\frac{8.05}{2} = 4.025$ cm
 Choice (4)

Chemistry

103. Water vapour content increases in air with increase in temperature. Choice (1)
104. Due to deforestation, oxygen content in air decreases. Choice (2)
105. $\text{Mg}(\text{HCO}_3)_2 \xrightarrow{\text{Heat}} \text{MgCO}_3 + \text{H}_2\text{O} + \text{CO}_2$
 Choice (1)
106. Petrol is used in dry cleaning as it removes oil spots or grease sticking to the fabric. Choice (1)
107. $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2$.
 It is a chemical combination reaction. Choice (2)
108. As CO_2 is a non-supportor of combustion and denser than air, it is used as a fire extinguisher. Choice (4)
109. The dichromate radical is $\text{Cr}_2\text{O}_7^{2-}$. Choice (3)

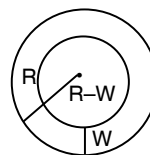
110. The molecular weight of SiO_2 is $28+(2 \times 16)=60$.
Choice (4)
111. As zinc is placed above hydrogen in the metal activity series, zinc displaces hydrogen from sulphuric acid. Hence it is a displacement reaction. Choice (4)
112. Boiling point of white phosphorus is 280°C .
Choice (3)
113. Oxygen is collected by downward displacement of water.
Choice (2)
114. During a chemical change, the total mass of reactants is equal to total mass of products. This is in accordance with "law of conservation of mass".
Choice (3)

Mathematics

115. Given
 $5^x = 1000$
 $5^{x-2} = 5^x \cdot 5^{-2}$
 $= \frac{5^x}{5^2} = \frac{1000}{25} = 40$ Choice (3)
116. Let the present age of Sowmya be x .
 \Rightarrow Age of Sobhadevi = $4x$
 The age of Sowmya after 20 years = $x + 20$.
 Age of Sobhadevi after 20 years = $4x + 20$.
 Given $4x + 20 = 2(x + 20)$
 $\Rightarrow 4x + 20 = 2x + 40$
 $2x = 20$
 $x = 10$
 \therefore Age of Sowmya = $x = 10$
 Age of Sobhadevi = $4x = 4 \times 10 = 40$. Choice (4)
117. Let the polygon has n sides
 \Rightarrow Interior angle = $180 - \frac{360}{n}$
 \Rightarrow Exterior angle = $\frac{360}{n}$
 Given
 Sum of interior angles = $5 \times$ sum of exterior angles.
 $(180 - \frac{360}{n}) \times n = 5 \times \frac{360}{n} \times n$.
 $180n - 360 = 1800$
 $180n = 2160$
 $\Rightarrow n = 12$. Choice (2)
118. We know that sum of the angles of a triangle is 180°
 $\Rightarrow x + y + y = 180^\circ$
 $\Rightarrow 2y + x = 180^\circ$
 $\Rightarrow 2y = 180 - x$. Choice (3)
119. From the triangle ABC
 $x + 60^\circ + 50^\circ = 180^\circ$
 $\Rightarrow x = 70^\circ$
 From the $\triangle ABD$, since $AB = DB \Rightarrow \angle BAD = \angle BDA = y$
 $\therefore \angle ABD + \angle BDA + \angle BAD = 180^\circ$
 $120^\circ + y + y = 180^\circ$
 $\Rightarrow 2y = 60^\circ$
 $\Rightarrow y = 30^\circ$
 From the $\triangle ACE$ since $CE = AC \Rightarrow \angle CAE = \angle CEA = z$.
 $\therefore \angle ACE + \angle CEA + \angle CAE = 180^\circ$
 $130^\circ + z + z = 180^\circ$
 $2z = 180 - 130^\circ$
 $2z = 50^\circ$
 $\Rightarrow z = 25$
 $= x = 70^\circ, z = 30^\circ, z = 25^\circ$ Choice (2)

120. 59 as it has only 1 and it xy as its multiples
Choice (3)

121.



\therefore Area of the required region
 = Area of the circle with radius R - Area of the circle with radius $R - W$
 $= \pi R^2 - \pi(R - W)^2$
 $= \pi(R^2 - (R - W)^2)$ [$\because a^2 - b^2 = (a + b)(a - b)$]
 $= \pi(R + R - W)(R - R + W)$
 $= \pi(2R - W)W$. Choice (1)

123. Let the number of chocolate by the boy in the first day be x .
 \Rightarrow he ate $x + 6, x + 12, x + 18, x + 24$ chocolates on second, third, fourth and fifth days
 $\therefore x + x + 6 + x + 12 + x + 18 + x + 24 = 100$
 $\Rightarrow 5x + 60 = 100$
 $\Rightarrow 5x = 40$
 $\Rightarrow x = 8$ Choice (3)
123. The slope of x - axis is zero. Choice (4)
124. Option 1 is false since 2 is an even prime number.
 Option 2 is false since 9, 15, 21 --- are odd numbers but prime are not
 Option 3 is false as any prime number has only two factors.
 Option 4 If 'a' is an odd number and 'n' is a natural number, for any values of 'a' and n a^n is always odd
 For example $3^2 = 9$ (odd)
 $5^3 = 125$ (odd) Choice (4)
125. In an Isosceles right angled triangle base = height = x (say)
 \therefore Area = $\frac{1}{2} b \times h = \frac{1}{2} x \cdot x = 98$
 $\Rightarrow x^2 = 196 = 14^2$
 $\Rightarrow x = 14$
 \therefore Hypotenuse² = base² + height²
 \Rightarrow Hypotenuse = $\sqrt{\text{base}^2 + \text{height}^2} = \sqrt{14^2 + 14^2}$
 $= 14\sqrt{2}$ Choice (2)
126. Among the given options $\sqrt{59}$ is irrational
 \therefore All the other options are perfect squares.
 i.e. $\sqrt{1.44} = \sqrt{(1.2)^2} = 1.2; \sqrt{81} = 9; \sqrt{36} = 6$.
 Choice (3)

127. Given $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \dots$ It is an infinite G.P. whose common ratio is $\frac{1}{2}$
 $\therefore S_n = \frac{a}{1-r} = \frac{\frac{1}{2}}{1-\frac{1}{2}} = \frac{\frac{1}{2}}{\frac{1}{2}} = 1$ Choice (3)

Alternate method:

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \frac{1}{32} + \dots$$

$$0.5 + 0.25 + 0.125 + 0.0625 + 0.3125 \approx 1$$

128. The side of the square ABCD is $2r$.
 \therefore Area of shaded region = Area of ABCD $- 4 \times$
 (Area of quarter circle)

$$= (2r)^2 - 4 \cdot \frac{1}{4} \times \pi r^2$$

$$= 4r^2 - \pi r^2 = r^2(4 - \pi) \quad \text{Choice (1)}$$

129. Let the number be x

$$\Rightarrow \frac{30}{100} \times \frac{40}{100} \times x = 69$$

$$\Rightarrow x = \frac{69 \times 100 \times 100}{30 \times 40} = 575 \quad \text{Choice (2)}$$

130. The number of proper sub set of 'a' is $2^5 - 1$
 $= 32 - 1 = 31$. Choice (2)

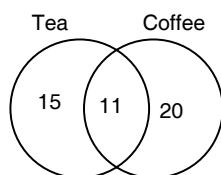
131. Given $\left(1 + \frac{1}{3}\right) \left(1 + \frac{1}{4}\right) \left(1 + \frac{1}{5}\right) \dots \left(1 + \frac{1}{100}\right)$

$$\Rightarrow \frac{4}{3} \times \frac{5}{4} \times \frac{6}{5} \times \dots \times \frac{101}{100}$$

$$= \frac{101}{3} \quad \text{Choice (4)}$$

132. Given angles are $x^\circ, x^\circ - 10^\circ, x^\circ + 30^\circ$ and $2x^\circ$
 we know sum of all the angles of a quadrilateral is 360°
 $\Rightarrow x + x - 10 + x + 30 + 2x = 360^\circ$
 $5x = 340^\circ$
 $\Rightarrow x = 68^\circ$ Choice (3)

- 133.



\therefore The number of people who take coffee but not tea is 20. Choice (2)

Biology

134. The number of triangles are 10. Choice (1)
135. Digested food material mixes with blood in small intestine. Choice (3)
136. The functioning of heartbeat and lungs without our involvement is controlled by a set of nerves that form autonomic nervous system. Choice (2)
137. We close immediately close our eyes as intense light falls. It is due to reflex action. Choice (4)
138. The basis for Green revolution are selective breeding, hybridisation and discovery of pesticides. Choice (2)
139. The swine flu virus got resistance towards high temperature due to the change in its genetic material. It is a mutation. Choice (2)
140. A good example for symbiosis is groundnut and Rhizobium bacteria. Choice (3)
141. Cross pollination occurs in the flowers of pea even though both stamens and pistil are present. Choice (2)
142. Aedes is the mosquito which transmits yellow fever. Choice (3)

143. The wings of moth are horizontal or flat where as butterfly are vertical in the resting stage. Choice (2)

144. When the sky is thundering, the process of sound entering into the inner ear through the bones of skull – Audio conduction. Choice (3)

145. Root wilt is the disease of a coconut tree is the leaflets become soft, inner leaves bent down and the outer leaves changed to yellow and drop. Choice (1)

History

146. The kakatiyas worshipped the kakati goddess. The founder of kakatiya dynasty is kakatiya Gundiya. Choice (4)

147. The main source of income to the state during the medieval period is – Land Revenue. Choice (2)

148. Balban (Slave Dynasty) Ruled India between 1265–85 AD. He believed in Divine Right of kingship. Balban broke the power of the Turk Chahalgani, and made the sultan all important. Choice (1)

149. Khurram with the title 'Shah Jahan' ascended the Moghal throne in 1625 AD. In his period the entire north India and Deccan came under Mughals. The reign of Shah Jahan was known as the Golden Age in the Mughal period. After his illness, Aurangzeb managed to ascend the throne in 1658. Choice (3)

150. The monument Red Fort is located in New Delhi. The world famous Taj Mahal, Juma Masjid, Moti Masjid, Red Fort etc, were built by Shah Jahan. Choice (1)

151. In 1724 A.D., the independent state of Hyderabad was established by Mir khamruddin chin kilich khan, who had a title 'Nizam-ul-Mulk'. Due to the court politics in the Mughal empire, he came to Deccan after the death of Aurangzeb. Choice (4)

152. First time the use of heavy machines began in England between 15-16th century, which is popularly called –Industrial Revolution. Choice (3)

153. William Bentinck is the person, who introduced English Education in India. Choice (2)

154. The 'First war of Independence' took place on May 10, 1857, at Meerut. Mangal Pandey is the first person, who revolted against the British. Bahadur Shah Zafar was the emperor of India at that time. Choice (3)

155. The Swadeshi Movement (vande mataram) (1905) has its genesis in the anti-partition movement which was started to oppose the British decision to divide Bengal. On August 7, 1905 a resolution to boycott British goods was adopted at a meeting of the Indian National congress held in Calcutta. Choice (1)

156. Swami Dayananda Saraswati, is the person who gave the famous Slogan – 'Go Back to the vedas' while Raja Ram Mohan Roy is called – "The Father of Indian Renaissance". Choice (4)

157. C.V.Raman (1888–1970) discovered the 'Raman effect' which won him Nobel prize in physics in 1930. His later years were devoted to the study of crystallography and lattice dynamics. While Jagadish Chandra Bose (J.C. Bose) is believed to have achieved a measure of success in wireless transmission. Choice (2)

Geography

158. The term atmosphere refers to the mass of air surrounding the earth up to a height of several hundred kilometers. It is this envelope of air that has made life possible on earth. The atmosphere is held close to earth because of the earth's gravitational force. Choice (3)
159. Planetary winds are permanent winds blowing in response to the planetary distribution of pressure. Each of the belts of high pressure gives rise to winds that blow towards the areas of low pressure on both its sides. Choice (1)
160. The largest fresh water lake in the world is Lake Superior. It is distributed between USA and Canada. Choice (2)
161. Brazil is the leading producer and exporter of coffee in the world. While India, and china are the important nations for Tea. Choice (1)
162. There are great variations in the climate of Asia because of the big area. Stretching from the frozen arctic to the equator, Asia is the world's largest continent. It is also a continent of extremes, containing the world's highest point, Mount Everest, as well as its lowest, the Dead Sea. Choice (3)
163. India's northern neighbour is Nepal. Whereas Southern neighbour is Sri Lanka Choice (1)
164. Satellites revolve around some planets e.g., the earth has only one satellite (the moon). Jupiter has as many as more than 60, while Mercury, and Venus have none. Recently Pluto was excluded from the category of planet and has been named dwarf planet. Choice (2)
165. The radius of the earth is 6,430 km. While its equatorial diameter stretches up to 12,756 kms. Choice (3)
166. For the purpose of comparison of the time, Greenwich (0° longitude) is taken as the reference time and it is called the Greenwich. Mean Time (GMT). The time of different places or countries of the world is stated as ahead or behind the GMT. Choice (2)
167. On December 22, Tropic of Capricorn ($23\frac{1}{2}^\circ$ Southern latitude) receives the vertical rays of the sun. This condition is called winter solstice (the longest day in the Southern hemisphere). At this time the North pole experiences a continuous night and the South pole has the continuous day. Choice (4)
168. The distribution of districts in Andhra Pradesh is Coastal Andhra (9 Districts), Rayalaseema (4 Districts) and Telangana (10 Districts). Choice (4)
169. Natural process of soil destruction and removal is called soil erosion, causing deterioration in production, loss of biodiversity etc. Forces responsible for erosion are moving water, wind and climate factors. With the methods of contour bunding, and terracing, construction of bunds across gullies, furrowing soil erosion can be prevented. Choice (3)

Civics

170. By the 44th Amendment Act in 1978, the Government omitted Right to property from the list of fundamental rights and made right to property a legal right. Choice (4)
171. Before 1978, Right to property was one of the seven fundamental Rights granted by constitution to its citizens. But on June 20, 1978, the Government omitted Right to property from the list of fundamental Rights and made right to property a legal right. Choice (3)
172. The vice-president presides over the meeting of Rajya Sabha. The constitution provides for a vice-president who is elected by members of the two houses of parliament in accordance with the system of proportional representation by means of single transferable vote. Choice (3)
173. The functions of the Revenue department are looked after, at the district level by the District collector, at the divisional level by the Revenue Divisional officer, and at mandal level by Mandal Revenue officer, and at village level by Village Administrative officer. Choice (2)
174. Civil cases pertain to movable and immovable properties, contracts, and disputes in some social and family matters. These civil cases are taken up by municipal courts and District civil courts. Choice (4)
175. The Lok Sabha is a popular house of the Indian Parliament. It consists of representatives elected by the people on the basis of Universal adult franchise through secret ballot. The maximum strength of Lok Sabha has been fixed at 550. Choice (3)
176. In 1954 a treaty between India and china has incorporated the principles of non-interference in other's internal affairs and respect each other's territorial unity, integrity and sovereignty. These principles were known as Panchasheela, which was signed by Jawaharlal Nehru and chow-eh-lai. Choice (3)
177. Executive council in Union Government functions under the leadership of Prime Minister. He is the chairman of Planning commission. It was established in the year of 1950. Choice (3)
178. Rights are some opportunities to the individual to develop his/her individuality. He/she should have freedom and opportunity to enjoy these rights. Keeping this matter in view, our constitutional makers have introduced Fundamental Rights to every citizen. Right to live is also a part of Right to freedom. Choice (1)
179. President represents all the people of India. He is the executive head of the state. President performs all the functions of his office on the advice of Union council of Ministers. Besides, the central rule that goes on daily in the country takes place in his name only. Choice (4)
180. The Non-Aligned Movement is an international organization of states considering themselves not formally aligned with or against any major power block. This movement is largely a brain child of Jawaharlal Nehru. It was founded in 1955. The first summit was held in Belgrade in 1961, and the 7th summit was held in New Delhi in 1983. Choice (4)