SCHOLASTIC APTITUDE TEST

NTSE STAGE 1(2016 - 17)

(For Students of Class X)

Time Allowed : (90 Minutes) **Maximum Marks : 100**

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101. The scientist related to law of electromagnetic induction is
(1) Einstein (2) Rutherford (3) Newton (4) Faraday

101. 4

102. The S.I. unit of temperature is
(1) Degree celcius
(2) Degree farenheit
(3) Kelvin
(4) None of these

102. 3

103. 1

of the following statement is true
(1) A has greater energy than B
(2) B has greater energy than A
(3) Both has equal energy
(4) None of these

104. 2

105. Which types of radiation absorbed by CO_2 molecules in atmosphere are
(1) x-rays (2) gamma rays (3) infra-red rays (4) UV rays

105. 3

106. If n conducting wire, each of resistance 4Ω is connected in parallel, then its equivalent resistance will be
(1) 4n (2) 4/n (3) n/4 (4) $4n^2$

106. 2

107. The speed of sound in air and sea water are 332 m/s and 1440 m/s respectively. A ship sends a strong signal down the sea and detect its echo after. 1.5 second. The depth of the sea at that point is
(1) 2.16 km (2) 1.08 km (3) 0.51 km (4) 0.255 km

107. 2

108. Two body of mass 1 gm and 4 gm are moving with equal kinetic energies. The ratio of the magnitude of their linear momentum is

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(1) 4 : 1 (2) $\sqrt{2}:1$ (3) 1 : 2 (4) 1 : 6

108. 3

109. The refractive index of water and glass with respect to air are $\frac{4}{3}$ and $\frac{3}{2}$ respectively. The refractive index of glass with respect to water will be

(1) $\frac{17}{6}$ (2) $\frac{1}{6}$ (3) 2 (4) $\frac{9}{8}$

109. 4

110. A technician has 10 resistor each of resistance 0.1Ω. The largest and smallest resistance he can obtain by combining these resistors are

(1) $10\,\Omega$ and $1\,\Omega$ respectively
(2) $1\,\Omega$ and $0.1\,\Omega$ respectively
(3) $1\,\Omega$ and $0.01\,\Omega$ respectively
(4) $0.1\,\Omega$ and $0.01\,\Omega$ respectively

110. 3

111. The wire of heater should made of that material whose

(1) Specific resistance more and melting point high
(2) Specific resistance more and melting point low
(3) Specific resistance low and melting point low
(4) Specific resistance low and melting point high

111. 1

112. The total internal reflection of light is not possible, When light travels from

(1) Glass to water (2) Water to glass (3) Water to air (4) Glass to air

112. 2

113. The frequency of second pendulum is

(1) 0.5 Hz (2) 1.0 Hz (3) 2.0 Hz (4) 1.5 Hz

113. 1

114. Two bodies with kinetic energy in the ratio of 9 :4 are moving with equal linear momentum. The ratio of their masses is

(1) 1 : 2 (2) 1 : 1 (3) 4 : 9 (4) 3 : 2

114. 3

115. The electronic configuration of an ion M^{+2} is 2, 8, 14 if its mass number of neutrons in its nucleus is

(1) 30 (2) 32 (3) 34 (4) 42

115. 1

116. In the presence of concentrated sulphuric acid, acetic acid react with ethyl alcohol to produce

(1) aldehyde
(2) alcohol
(3) ester
(4) carboxylic acid

116. 3

117. Which one of the following metal oxides shows both acidic and basic characters

(1) Na_2O
(2) K_2O
(3) CuO

(4) Al_2O_3

117. 4

118. The molecular formula of potash alum is
(1) $K_2SO_4 \cdot Al_2(SO_4)_3\,24H_2O$
(2) $Ca(OCl)Cl$
(3) K_2SO_4
(4) $Al_2(SO_4)_3\,24H_2O$

118. 1

119. The concentration of hydroxide ion in a solution is 1×10^{-10} mole per litre. Its pH value will be
(1) 4 (2) 8 (3) 10 (4) - 10

119. 1

(1) methyl isocyanide
(2) sulphur dioxide
(3) chloropicrin
(4) nitrous oxide

120. 3

121. The number of carbon atom in kerosene oil is
(1) $C_6 - C_{11}$ (2) $C_{20} - C_{30}$ (3) $C_{11} - C_{16}$ (4) $C_{18} - C_{22}$

121. 3

122. Which of the following salt does not contain the water of crystallization
(1) blue vitriol
(2) baking soda
(3) washing soda
(4) gypsum

122. 2

123. Acidic solvents are
(1) those who donate proton
(2) accept proton
(3) either can give or accept proton
(4) neither give nor accept proton

123. 1

124. The method to purify the colloidal solution is
(1) peptization
(2) coagulation
(3) dialysis
(4) breadig's arc method

124. 3

125. The dispersion of any liquid in a liquid is known as
(1) gel (2) gum (3) gelatin (4) emulsion

125. 4

126. Which of the following is made by hydrolysis of starch
(1) glucose (2) fructose (3) sucrose (4) maltose

126. 1

127. Amalgam is
(1) submetal (2) alloy (3) compound (4) heterogeneous mixture

127. 2

128. The number of salivary glands in human is
(1) two pairs
(2) three pairs
(3) four pairs
(4) five pairs

128. 2

129. Wings of birds and insects are
(1) vestigial organs
(2) homologous organs
(3) analogous organs
(4) none of these

129. 3

130. Cramps in the leg muscles after running a long distance are because of
(1) build up of lactic acid
(2) build up of acetic acid
(3) build up of oxalic acid
(4) build up of pyruvic acid

130. 1

131. Translocation of food by phloem is in the form of
(1) sucrose
(2) protein
(3) harmones
(4) fat

131. 1

132. Enzyme responsible for digestion of protein is
(1) ptylin
(2) pepsin
(3) amylopsin
(4) steapsin

132. 2

133. Ethylene harmone is found in the form of
(1) gas
(2) liquid
(3) solid
(4) all of the above

133. 1

134. Calciferol is
(1) vitamin A

(2) vitamin B
(3) vitamin C
(4) vitamin D

134. 4

135. Sodium bebnzoyate is
(1) tranquilizer
(2) edible colour
(3) preservative
(4) antibiotic

135. 3

136. The beehive is made of
(1) cellulose
(2) chiten
(3) cork
(4) wax

136. 4

137. In which of the following blubber is found
(1) frog
(2) lizard
(3) elephant
(4) fish

137. 3

138. In leukemia
(1) there is lack of oxygen in body
(2) white spot made on skin
(3) proliferation of white blood corpuscles takes place
(4) red blood corpuscles increases

138. 3

139. Hydrophobia is due to
(1) bacteria
(2) virus
(3) protozoa
(4) fungus

139. 2

140. Silver fish is a
(1) insect
(2) cnidarians
(3) crustacean
(4) fish

140. 1

141. 'Tripitaka' texts are related with which religion
(1) Vedic religion (2) Buddhism (3) Jainism (4) Shaivism

141. 2

142. The language of sangam literature was
(1) Tamil (2) Bengali (3) Hindi (4) Marathi

142. 1

143. Ashoka was the son of
(1) Chandragupta Maurya
(2) Brihdrath
(3) Bindusar
(4) Ramgupta

143. 3

144. Who was the last emperor of Mughal dynasty in India
(1) Aurangzeb
(2) Shahjahan
(3) Jahangir
(4) Bahadurshah Zafar

144. 4

145. The grave of Maharani Laxmibai is situated at
(1) Varanasi
(2) Kanpur
(3) Allahabad
(4) Gwalior

145. 4

146. Malik Kafur was trusted general of
(1) Ala-uddin Khilzi
(2) Firoz Tughlak
(3) Iltutmish
(4) Muhammad-bin-Tughlak

146. 1

147. Ibrahim Lodhi was defeated
(1) In the first battle of Panipat
(2) In the second battle of Panipat
(3) In the first battle of Talikota
(4) In the first battle of Tarain

147. 1

148. Who led the revolt of 1857 in Bihar
(1) Khan Bahadur Khan
(2) Tatiya Tope
(3) Kunwar Singh
(4) Mangal Pandey

148. 3

149. Who is famous as Deshbandhu
(1) Chandrashekhar
(2) A.O.Hume
(3) Chittranjan Das
(4) Veer Savarkar

149. 3

150. 'Satyarth Prakash' was composed by
(1) Swami Dayanand Saraswati
(2) Mahatma Gandhi

(3) Swami Vivekanand
(4) Ram Krishna Paramhans

150. 1

151. Which among the following is not correctly matched
(1) Buland darwaja-Akbar
(2) Alai Darwaha - Ala-uddin- Khilzi
(3) Tajmahal - Shahjahan
(4) Red Fort - Babar

151. 4

152. Gulbadan Begum was the daughter of
(1) Babar
(2) Humayun
(3) Akbar
(4) Shahjahan

152. 1

153. The Bardavli satyagriha was led by
(1) Vitthalbhai Patel
(2) Sardar Ballabhbhai Patel
(3) Mahadev Desai
(4) Mahadev Govind Ranade

153. 2

154. Who was the founder of Brahma Samaj
(1) Swami Dayanand Saraswati
(2) Swami Vivekanand
(3) Raja Rammohan Roy
(4) Swami Ram Krishna Paramhans

154. 3

155. M.S. Swaminathan is associated with
(1) White revolution
(2) Blue revolution
(3) Red revolution
(4) Green revolution

155. 4

156. Panna is famous for
(1) Petroleum
(2) Diamond
(3) Coal
(4) Gold

156. 2

157. India's biggest desert is
(1) Thar
(2) Sahara
(3) Atakama
(4) Gobi

157. 1

158. The best quality of coal is
(1) Peat
(2) Bituminus
(3) Anthrectie
(4) Lignite

158. 3

159. Rihand Valley project is located in
(1) Uttar Pradesh
(2) Bihar
(3) Rajasthan
(4) Madhya Pradesh

159. 1

160. Which of the following is not fibre crop
(1) Cotton
(2) Jute
(3) Hemp
(4) Rubber

160. 4

161. 5^{th} June is celebrated as
(1) World Environment day
(2) World Population day
(3) Earth Day
(4) World Health day

161. 1

162. Max Muller was a famous _____ scholar
(1) Russian
(2) German
(3) Italian
(4) French

162. 2

163. Ankleshwar is situated at
(1) Gujrat
(2) Tamilnadu
(3) Kerala
(4) Punjab

163. 1

164. Which among the following is not correctly matched
(1) Heerakund - Mahanadi
(2) Bhakhranangal - Satluj
(3) Nagarjun - Krishna
(4) Matateela - Ganga

164. 4

165. The capital of Arunachal Pradesh is
(1) Agartalla
(2) Imphal
(3) Gangtok
(4) Itanagar

165. 4

166. Satluj, Beas, Ravi, Chenab and Jhelum are the tributaries of
(1) Indus
(2) Tapti
(3) Kaveri
(4) Krishna

166. 1

167. Kaziranga National Park is situated in
(1) Uttar Pradesh
(2) Assam
(3) Gujrat
(4) Madhya Pradesh

167. 2

168. The famous Sanchi Stupa is in
(1) Maharashtra
(2) Uttar Pradesh
(3) Madhya Pradesh
(4) Rajasthan

168. 3

169. In which state is the Pushkar Fair held
(1) Punjab
(2) Rajasthan
(3) Himachal Pradesh
(4) Uttar Pradesh

169. 2

170. Who is the present Vive-President of India
(1) Smt. Sumitra Mahajan
(2) Sri. Rajnath Singh
(3) Sri. Manoj Sinha
(4) Sri. Hamid Ansari

170. 4

171. The Chairman of the drafting committee of Indian constituent assembly was
(1) Dr. Bhimrao Ambedkar
(2) Sardar Patel
(3) Jawaharlal Nehru
(4) Dr. Rajendra Prasad

171. 1

172. The Indian Economy is
(1) Liberal Economy
(2) Socialist Economy
(3) Mixed Economy
(4) Marxisim Economy

172. 3

173. The Panchsheel agreement was signed between
(1) India and China

(2) India and Bhutan
(3) India and Nepal
(4) None of the above

173. 1

174. Who is the Chief Commander of Indian Armu
(1) Prime Minister
(2) Defence Minister
(3) President
(4) Vice President

174. 3

175. The tenure of Lok Sabha member is
(1) 5 years
(2) 6 years
(3) 3 years
(4) 4 years

175. 1

176. International Insitution related to child welfare is
(1) UNICEF
(2) ILO
(3) FAO
(4) CNT

176. 1

177. The main strategy adopted in the new economic policy of 1991 was
(1) Liberalisation
(2) Privatisation
(3) Globalisation
(4) All of the above

177. 4

178. Who is the author of 'Arthashastra'
(1) Kalidas
(2) Valmiki
(3) Vedvyas
(4) Kautilya

178. 4

179. Who among the following received Nobel Prize in the field of economics
(1) Mother Teresa
(2) Rabindranath Tagore
(3) Amartya Sen
(4) C V Raman

179. 3

180. Who was the Chairman of the Committee, which proposed Democratic Decentralisation and Panchayati Raj-
(1) K.M. Pannikar
(2) Balwant Rai Mehta
(3) Mahatma Gandhi
(4) H.N. Kunjru

180. 2

181. $\cos\theta\sqrt{\sec^2\theta-1}$ is equal to

(1) $\sin\theta$ (2) $\cot\theta$ (3) $\sec\theta$ s (4) 1

181. 1

182. For the maximum value of $\sin x$, value of x is

(1) $\frac{\pi}{4}$ (2) $\frac{\pi}{2}$ (3) π (4) $\frac{3\pi}{2}$

182. 2

183. If $2x+3y+z=0$ then $8x^3+27y^3+z^3\div xyz$ is equal to

(1) 0 (2) 6 (3) 18 (d) 9

183. 3

184. The sum of the roots of quadratic equation $2x+\frac{4}{x}=9$ is

(1) $\frac{7}{2}$ (2) $\frac{9}{2}$ (3) 3 (4) $-\frac{9}{2}$

184. 2

185. If the volume of two spheres are in the ratio is $64:27$ then the ratio of their surface area is

(1) $3:4$ (2) $4:3$ (3) $9:16$ (4) $16:9$

185. 4

186. If the H.C.F. of the expression (a^2-1) and $pa^2-q(a+1)$ is $(a-1)$ then relation between p and q will be

(1) $p=q$
(2) $p=2q$
(3) $p=2q+1$
(4) $p=q+1$

186. 2

187. The measures of the five angles of a hexagon are equal and the sixth angle measures 100^0, then the measure of each of the five angle is

(1) 120^0
(2) 124^0
(3) 128^0
(4) 130^0

187. 2

188. The value of $\frac{(0.7)^0-(0.1)^{-1}}{\left(\frac{3}{8}\right)^{-1}\left(\frac{3}{2}\right)^3+\left(-\frac{1}{3}\right)^{-1}}$ is

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

188. 1

189. If the angles of elevation of the top of a tower from two point at distances ‘a’ and ‘b’ from the foot of the tower and are in the same line, are complementary, the height of the tower is

(1) ab (2) $\sqrt{b}$ (3) $\sqrt{a}$ (4) $\sqrt{ab}$

189. 4

190. If $p = x + \frac{1}{x}$ then the value of $p - \frac{1}{p}$ will be

(1) $3x$

(2) $\frac{3}{x}$

(3) $\frac{x^4 + x^2 + 1}{x^3 + x}$

(4) $\frac{x^4 + 3x^2 + 1}{x^3 + x}$

190. 3

191. If $log_5\left[log_2\left(log_3 x\right)\right] = 0$ then the value of x is

(1) 3 (2) 6 (3) 9 (4) 0

191. 3

192. Angle between the lines $6 + x = 0$ and $3 - y = 0$ will be

(1) 0^0

(2) 90^0

(3) 180^0

(4) 60^0

192. 2

193. If number $6, 8, 2, x-5, 2x-1, 15, 17, 20$ and 22 are in ascending order and its median is 14 then the value of x will be

(1) 14 (2) 7 (3) 15 (4) 20

193. 2

194. If $U = \{1,2,3,4,5,6,7,8\}$

$A = \{3,4,5,6\}$ and $B = \{1,3,5,7\}$ then the value of $(A' - B')$ is

(1) $\{2,8\}$

(2) $\{3,5\}$

(3) $\{1,7\}$

(4) $\{1,2,4,6\}$

194. 3

195. Factors of $\frac{1}{3}c^2 - 2c - 9$ are

(1) $\left(\frac{1}{3}c + 3\right)(c+3)$

(2) $\left(\frac{1}{3}c - 3\right)(c-3)$

(3) $\left(\frac{1}{3}c - 3\right)(c+3)$

(4) $\left(c-\frac{1}{3}\right)(3c+1)$

195. 3

196. If Rs. 810 divided among A, B and C are in ratio $\frac{1}{4}:\frac{2}{5}:1\frac{3}{8}$ then the share of A will be

(1) Rs 100
(2) Rs 160
(3) Rs 550
(4) Rs 200

196. 1

197. The radius of a wheel is 0.25m. The number of revolution to travel a distance of 11 km will be
(1) 1000
(2) 4000
(3) 8000
(4) 7000

197. 4

198. Sum of odd numbers between 0 and 50 is
(1) 625
(2) 600
(3) 900
(4) 1200

198. 1

199. A father is 7 times as old as his son. Two years ago, the father was 13 times as old as his son. Father's present age is
(1) 24 years
(2) 28 years
(3) 30 years
(4) 32 years

199. 2

200. The areas of three adjacent faces of a cuboid are a, b and c respectively. Twice of its volume is
(1) 2abc m^3
(2) $2\sqrt{a^2+b^2+c^2}$ m^3
(3) $2\sqrt{abc}$ m^3
(4) $6\sqrt{abc}$ m^3

200. 3