

SCHOLASTIC APTITUDE TEST

NTSE STAGE 1(2016 - 17)

(For Students of Class X)

Time Allowed : (90 Minutes)

Maximum Marks : 100

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 fahrenheit
(3) Kelvin
(4) None of these
102. 3
103. How many light year (ly) in one metre is
(1) $1.057 \times 10^{-16} ly$ (2) $9.46 \times 10^{15} ly$ (3) $2.26 \times 10^6 ly$ (4) $9.48 \times 10^{15} ly$
103. 1
104. Two different light sources of A and B have wave length $0.7 \mu m$ and 0.3μ respectively. Then which 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) 10Ω and 1Ω respectively
 (2) 1Ω and 0.1Ω respectively
 (3) 1Ω and 0.01Ω respectively
 (4) 0.1Ω and 0.01Ω 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
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- (4) Al_2O_3
117. 4
118. The molecular formula of potash alum is
(1) $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24H_2O$
(2) $Ca(OCl)Cl$
(3) K_2SO_4
(4) $Al_2(SO_4)_3 \cdot 24H_2O$
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
120. Which of the following gas is known as tear gas
(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) bredig'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
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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) hormones
(4) fat
131. 1
132. Enzyme responsible for digestion of protein is
(1) ptylin
(2) pepsin
(3) amylopsin
(4) steapsin
132. 2
133. Ethylene hormone 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
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- (2) vitamin B
- (3) vitamin C
- (4) vitamin D

134. 4

135. Sodium benzoate is

- (1) tranquilizer
- (2) edible colour
- (3) preservative
- (4) antibiotic

135. 3

136. The beehive is made of

- (1) cellulose
- (2) chitin
- (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
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142. 1
143. Ashoka was the son of
(1) Chandragupta Maurya
(2) Brihadrath
(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
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- (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) Anthracite
(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. 5th 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
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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 Vice-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
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- (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) $\sec \theta$ (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 $2x + x^{\frac{4}{2}} = 9$ 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° , then the measure of each of the five angle is
 (1) 120°
 (2) 124°
 (3) 128°
 (4) 130°
187. 2
188. The value of $\frac{(0.7)^0 - (0.1)^{-1}}{\binom{3}{-1} \binom{3}{2} + \binom{1}{-3}}$ 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{d} (4) \sqrt{db}

189. 4

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

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

190. 3

191. If $\log_5 \left[\log_2 (\log_3 x) \right] = 0$ 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°
 (2) 90°
 (3) 180°
 (4) 60°

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

$$(4) \binom{c-1}{3} (3c+1)$$

195. 3

196. If Rs. 810 divided among A, B and C are in ratio $4\frac{1}{2} : 5^2 : 18^3$ 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) $2abc \text{ m}^3$
- (2) $2\sqrt{a^2 + b^2 + c^2} \text{ m}^3$
- (3) $2\sqrt{abc} \text{ m}^3$
- (4) $6\sqrt{abc} \text{ m}^3$

200. 3