

# NTSE-2017

## PART-3

### SCHOLASTIC APTITUDE TEST

#### (MATHS)

101.  $U = \{x / x \in N, x < 5\}$ ,  $A = \{x / x \in N, x \leq 2\}$  THEN  $a' =$  \_\_\_\_\_  
(A) {1,2}                      (b) {1,2,3,4,5}                      (C) {3,4}                      (D) {3,4,5}
102. 0.235 is a \_\_\_\_\_ number  
(a) Natural                      (B) Integer                      (C) Rational                      (D) Irrational
103. Which one is the constant term of  $4x^3 - 3x^2 + 2x - 5$   
(a) 4                      (b) -5                      (c) 2                      (c) 2                      (d) -3
104. Point (4,0) lies on \_\_\_\_\_  
(A) XO                      (b) YO                      (c) OX                      (D) OY
105. Line  $y = 4$  is \_\_\_\_  
(a) Parallel to Y-Axis                      (b) Parallel to X -Axis  
(c) Intersecting both axes                      (c) Passes throw origin
106. \_\_\_\_\_ was the most logical and abstract creator of Euclid's geometry approach.  
(a) Hilbert                      (B) Bhaskaracharya                      (C) Thelus                      (D) Pythagoras
107. If P-Q-R, Then \_\_\_\_\_ is the opposite ray of  $\overrightarrow{QR}$   
(a)  $\overrightarrow{PQ}$                       (b)  $\overrightarrow{QP}$                       (C)  $\overrightarrow{RQ}$                       (D)  $\overrightarrow{PR}$
108. An angle is the union set of  
(a) Lines                      (B) Line segments                      (c) Rays                      (d) A line segment and a ray
109. The sum of all six exterior angles of a triangle is\_  
(a) 180                      (b) 360                      (c) 720                      (d) 90
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110. If diagonals of a quadrilateral are not conjugate and bisect at right angle, then such quadrilateral is known as\_\_
- (a) Square      (b) rectangle      (c) trapezium      (d) rhombus
111. ABCD is a rhombus. If  $ABCD = 160$  and  $AC = 16$  then  $BD =$  \_\_\_\_\_
- (a) 10      (b) 20      (c) 15      (d) 25
112. The length of minor arc  $AB$  of  $(P, 7)$  is 14. Find the length of major arc  $AB$
- (a) 18      (b) 21      (c) 28      (d) 30
113. The length of the edge of equilateral triangle is 8cm. Then semi circumference of such triangle is \_cm.
- (a) 4      (b) 24      (c) 12      (d) 36
114. The formula of lateral surface area of cylinder is
- (a)  $A = 2\pi rh$       (b)  $A = 2\pi r$       (c)  $A = \pi r^2$       (d)  $A = 2\pi r^2 h$
115. Upper limit of class '41-50' is
- (a) 41      (b) 50      (c) 45      (d) 91
116. G.C.D of 4 and 19 is
- (a) 1      (b) 4      (c) 19      (d) 76
117. The polynomial having 3 degree is known as
- (a) Linear      (b) Quadratic      (c) Polynomial      (d) Trinomial (cubic)
118. If  $\frac{x+y}{xy} = 2$  and  $\frac{x-y}{xy} = 6$  then  $y =$  \_\_\_\_\_
- (a)  $1/4$       (b)  $-1/2$       (c)  $-1/4$       (d)  $1/3$
119. Find the product of zeros of the quadratic polynomial:  $x^2 - 4x + 3$
- (a) 1      (b) 3      (c) 4      (d) -4
120. In  $\Delta ABC$ ,  $\angle B$  is right angle. If  $a = 16$  and  $c = 12$  then  $b =$  \_\_\_\_\_
- (a) 8      (b) 18      (c) 20      (d) 28

## SCIENCE AND TECHNOLOGY

121. For which of the following physical quantities, it is necessary to indicate direction along with its magnitude?
- (a) Speed            (b) Path length            (c) Displacement            (d) Temperature
122. Which Newton's law of motion gives magnitude of force?
- (a) First            (b) Second            (c) Third            (d) None of these
123. Which of the following physical quantity is scalar quantity?
- (a) Mass            (b) Force            (c) Impulse of force            (d) Momentum
124. Give the SI unit of Density?
- (a) Kg            (b) m<sup>2</sup>            (c) kg/m<sup>2</sup>            (d) kg/m
125. What is the full form of PNG?
- (a) Petrol Natural Gas (b) Pressurize Natural Gas (c) Pipe Natural Gas (d) Pure Natural Gas
126. Which of the following is a monatomic molecular?
- (a) Nitrogen            (b) Hydrogen            (c) Helium            (d) Oxygen
127. Which Newton's law of motion defines force?
- (a) First            (b) Second            (c) Third            (d) None
128. Density of water is \_\_\_\_\_
- (a) 1000kg/m<sup>3</sup>            (b) 1kg/m<sup>3</sup>            (c) 1000g/cm<sup>2</sup>            (d) 100kg/m<sup>3</sup>
129. What is the approximate diameter of human hair?
- (a) 500nm            (b) 5000nm            (c) 50nm            (d) 50000nm
130. What is the orbital period of Halley's Comet?
- (a) 66years            (b) 76years            (c) 86years            (d) 96years
131. Where is the image of an object formed in human eye?
- (a) Iris            (b) Pupil            (c) Retina            (d) Cornea

132. What is the unit of electric potential difference?  
(a) Volt                    (b) coulomb                    (c) Joule                    (d) Watt
133. In which state of a substance, it has the shape?  
(a) Liquid                    (b) Liquid and Gas                    (c) Gas                    (d) Solid
134. Which of the following is correct for X-rays?  
(a) It is beam of electrons                    (b) It is electromagnetic waves  
(c) It is positively charged particle                    (d) It is negatively charge particle
135. State the atomic mass of H<sub>2</sub>O?  
(a) 16 U                    (b) 17 U                    (d) 18 U                    (d) 15 U
136. Who was the scientist to make attempts for giving explanatory definition of element?  
(a) Rontgen                    (b) Dalton                    (c) Rutherford                    (d) Laveziour
137. Which bond is present in oxygen atom?  
(a) Ionic bond                    (b) covalent divalent bond  
(c) Covalent bond                    (d) covalent trivalent bond
138. 1 kWh = \_\_\_\_\_  
(a)  $3.6 \times 10^6$                     (b)  $36 \times 10^6$                     (c)  $3.6 \times 10^7$                     (d)  $3.6 \times 10^5$
139. Who discovered  $\gamma$ -rays?  
(a) Rutherford                    (b) Thomson                    (c) Willard                    (d) Dalton
140. Which radiation was discovered by Rutherford?  
(a)  $\alpha$  &  $\beta$                     (b)  $\beta$  &  $\gamma$                     (c)  $\alpha$  &  $\gamma$                     (d)  $\alpha$ ,  $\beta$  &  $\gamma$
141. Which chemical is formed when non metallic oxides react with water?  
(a) Metal                    (b) Base                    (c) Minerals                    (d) Acid
142. What is the molecular formula of silver glance?  
(a) Ag<sub>2</sub>S                    (b) AgCl                    (c) CaCO<sub>3</sub>                    (d) Al<sub>2</sub>O<sub>3</sub>

143. How many elements are there in non metal?  
(a) 14 (B) 18 (c) 88 (D) 114
144. What percentage of carbon in Bituminous Coal?  
(a) 28-30% (b) 28% (c) 78-86% (d) 94-98%
145. Which is the largest cell in human body?  
(a) Liver cell (b) Nerve cell (c) Muscle cell (d) Kidney cell
146. Who has given the word 'Cell'?  
(a) Robert Hook (c) Robert Brown (c) Watson and Crick (d) Flamming
147. Which is the living component of xylem?  
(a) Tracheid (b) Xylem fibre (c) Xylem parenchyma (d) Trachea
148. Living mechanical tissue is \_\_\_\_\_  
(a) Parenchyma (b) Collenchyma (c) Sclerenchyma (d) Chlorenchyma
149. Which of the tissue has deposition of Pectin?  
(a) Collenchyma (b) Sclerenchyma (c) Phloem (d) Xylem
150. Where is the place of Ciliated epithelium Tissue?  
(a) Ureter (b) Liverduct (C) Fallopian tube (d) Bileduct
151. Bone is \_\_\_\_\_  
(a) Epithelium tissue (b) connective tissue (c) Muscular tissue (d) Nervous tissue
152. Which one of the infections disease?  
(A) T.B (b) Goiter (c) Diabetes (d) Hypertension
153. Which one is belongs to 'Retro virus group'?  
(a) Dengue Virus (b) Hepatitis virus (c) Influenza virus (d) HIV
154. Who is responsible for malaria?  
(a) Bacteria (b) Virus (c) Plasmodium (d) Worm

155. Where is the Gaseous exchange takes place during respiration is human being?  
(a) Bronchi (b) Pharynx (c) Larophaynx (d) Trachea
156. How many chambers are present in human heart?  
(a) 2 (b) 3 (c)4 (d) 6
157. The spinal cord originates from where?  
(a) Cerebrum (b) Cerebllum (c) Medulla oblongata (d) Pones
158. In which of the following living organisms spore information take place?  
(a) Mucor (b) Planaria (c) spirogyra (d) Potato
159. The countinuity of features from one generation to another is known as\_\_\_\_  
(a) Evolution (b) Mutation (c) Generation (d) Heredity
160. Which specie of Italian honey bee is useful for honey production?  
(a) Epis serena indica (b) Epis flora (c) Epis corseta (d) Epis meliphera

## SOCIAL SCIENCE

161. Who discovered "Cape of Good Hope" island?  
(a) Columbus (b) Bartholomew Diaz (c) Vasco – de- Gama (d) Amerigo Vesputi
162. When did Britishers establish the Head Quarter in Bombay?  
(a) 1613 (b) 1608 (c) 1680 (d) 1667
163. When did the First World War start?  
(a) 1<sup>st</sup> August, 1914 (b) 8<sup>th</sup> August 1914 (c) 14<sup>th</sup> Aug., 1914 (d) 20<sup>th</sup> Aug., 1914
164. Who established 'Fascism' in Italy?  
(a) Hitler (b) Mussolini (c) Lenin (d) Napoleon
165. In which country was national flag hoisted prepared by Madam Cama?  
(a) France (b) Russia (c) Germany (d) Japan
166. Which festival was there in Punjab when Jallianwala Bagh massacre occurred?  
(a) Baisakhi (b) Diwali (c) Holi (d) Ramadan Id
167. Which one of the following is not included in the state known as 'seven sisters'?  
(a) Assam (b) Sikkim (c) Manipur (d) Tripura
168. Which day is celebrated as "Human Rights Day"?  
(a) 19 December (b) 12 December (c) 15 December (d) 10 December
169. Which kind of democracy/governance system is there in our country?  
(a) Presidential (b) Parliamentary (c) Independent (d) Neutral
170. Where does India lie on the Asia continent?  
(a) South (b) North (c) East (d) West
171. Which canal has reduced the distance between Europe and India?  
(a) Panama (b) Alaska (c) Suez (d) Nile

172. By which name is the delta region of the Ganga and Brahmaputra known as?  
(a) Taheri (b) Pamir (c) Vrundavan (d) Sundarvan
173. By which name is the some rainfall at Malabar coast known as?  
(A) Amra Vrushti (b) Ana Vrushti (c) Him Vrushti (d) Cyclone
174. In which state are wild goats and musk(Kasturi) deer found?  
(a) Andhra Pradesh (b) Gujarat (c) Jammu and Kashmir (d) Assam
175. Which fair of Gujarat is famous for buy and sale of donkeys?  
(a) Tarnetar (B) Siddhapur (c) Bhavnath (d) Vautha
176. What does 'Tsunami' means in Japanese language/  
(a) Upward tidal waves (b) Destructive waves  
(c) Spiral waves (d) Downward tidal waves
177. In which sea "Lakshadweep" Island located?  
(a) Bay of Bengal (b) Arabian Sea (c) Indian Ocean (d) Pacific ocean
178. After gaining independence which state was the first to join Indian Union?  
(a) Morbi (b) Junagadh (c) Patiyala (d) bhavanagar
179. Who established a political party "Forward Bloc"?  
(a) subhashchandra Bose (b) Khudiram bose  
(c) Rashbihari bose (d) Satyendranath bose
180. Which British system was like "sweet poison"?  
(a) Revenue Policy (b) Policy of annexation  
(c) Subsidiary Alliance (d) Permanent Deposit Policy
181. Who was the pioneer of armed revolution in Gujarat/  
(a) Barindra Ghosh (b) Mohanlal Panday (c) chhotubhai Purani (d) Aurbindo Ghose
182. When did the people of Germany broke down the "Berlin Wall"?  
(a) 1990 (B) 1991 (c) 1989 (d) 1992



183. What type of government was established to join Indian union by the people of Junagadh?  
(a) Responsible Govt. (b) Independent Govt.  
(c) Arzai Hakumat (d) Federal Government.
184. In which district Rangpur, having archaeological importance is situated?  
(a) Surendranagar (b) Ahmedabad (c) Rajkot (d) Patan
185. Who were the direct descendent of Stone Age civilization and creator of Mohenjo-Daro's Indus culture?  
(a) Aryan (b) Mongoloid (c) Dravid (d) Armenoid
186. The day of 21<sup>st</sup> June known as?  
(a) Environment Day (b) World yoga Day (c) Mother Day (d) World Peace Day
187. Which Veda is known as Gangotri of Music?  
(a) Rigveda (b) Atharveda (c) Yajurveda (d) Samveda
188. In which language did Abul Fazal write the Akabarnama?  
(A) Farsi (b) Arabi (c) Urdu (d) Pali
189. Which ancient university was situated at Badgaon village of Patna district of Bihar?  
(a) Takshshila (b) Vallabhi (c) Nalanda (d) Bikramshila
190. Name the Indian mathematician who discovered zero?  
(a) Aryabhata (b) Bhaskaracharya (c) Brahmgupta (d) Lilawati
191. Which book of maths had been written by Bhaskaracharya?  
(a) Aryabhattiyam (b) Lilavati Ganit (c) Dash Gitika (d) Arya Siddhant
192. Who built the Red fort of Delhi?  
(a) Akbar (b) Humayun (c) Shahjahan (d) Jahangir
193. Which wild life is totally extinct from Gujarat forest area?  
(a) Leopard (b) Tiger (c) Deer (d) Lion
194. Which country is the highest exporter of in the world?  
(a) China (b) Pakistan (c) America (d) India

195. Which crop is known as “White Gold” in India?  
(a) Cotton      (b) Millet      (c) Paddy      (d) White kidney beans
196. Where is the largest oil refinery of the world is located?  
(a) Dubai      (b) Gauhati      (c) Jamnagar      (d) Kuwait
197. Which Indian city is well-known as “Silicon Valley” of India?  
(a) Hyderabad      (b) Nagpur      (c) Mumbai      (d) Bengaluru
198. Which term is used for families living under the poverty line?  
(a) APL      (b) BPL      (C) GPL      (D) CPL
199. Which economist of Indian origin propound the Human development index?  
(a) Dr. Amartya Sen      (b) Dr. H.M Patel      (c) Dr. Manmohan Singh      (d) Raghuram Rajan
200. Which poetry is not written by kalidas?  
(a) Kumarsambhava      (b) Raghuvansh      (c) Dashkumarcharit      (d) Rutusamhar