# 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 (1) Einstein	law of electromagnetic ir (2) Rutherford	nduct (3)	ion is Newton	(4)	Faraday	
101.	4						
102.	The S.I. unit of tempera (1) Degree celcius (2) Degree farenheit (3) Kelvin (4) None of these	ature is					
102.	3						
103.	How many light year (ly (1) $1.057 \times 10^{-16} ly$	<ul> <li>in one metre is</li> <li>(2) 9.46×10<sup>15</sup> ly</li> </ul>	(3)	2.26×10 <sup>6</sup> 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 $0.3\mu$ 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 (1) x-rays	n absorbed by CO <sub>2</sub> mole (2) gamma rays	cules (3)	in atmosphere are infra-red rays	(4)	UV rays	
105.	3						
106.	If n conducting wire, each of resistance $4\Omega$ is connected in parallel, then its equivalent resistance will						
	be (1) 4n	(2) 4/n	(3)	n/4	(4)	4n <sup>2</sup>	
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						

	(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 $\frac{4}{2}$ 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 $0.1\Omega$ . 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.	<ul> <li>The wire of heater should made of that material whose</li> <li>(1) Specific resistance more and melting point high</li> <li>(2) Specific resistance more and melting point low</li> <li>(3) Specific resistance low and melting point low</li> <li>(4) Specific resistance low and melting point high</li> </ul>							
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 secon (1) 0.5 Hz	d pendulum is (2) 1.0 Hz	(3)	2.0 Hz	(4) 1.5 Hz			
113.	1							
114.	Two bodies with kinetic of their masses is	energy in the ratio of 9	:4 are	e moving with equal	linear momentum. The ratio			
	(1) 1:2	(2) 1:1	(3)	4:9	(4) 3:2			
114.	3							
115.	The electronic configura (1) 30	ation of an ion M <sup>+2</sup> is 2, 8 (2)  32	, 14 i (3)	f its mass number o 34	of neutrons in its nucleus is (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 follow (1) $Na_2O$ (2) $K_2O$ (3) $CuO$	ing metal oxides shows t	ooth a	acidic and basic cha	aracters			

(4)  $Al_2O_3$ 117. 4 118. The molecular formula of potash alum is (1)  $K_2 SO_4 \cdot Al_2 (SO_4)_3 24H_2O$ (2) *Ca*(*OCl*)*Cl* (3)  $K_2SO_4$ (4)  $Al_2(SO_4)_2 24H_2O$ 118. 1 The concentration of hydroxide ion in a solution is  $1 \times 10^{-10}$  mole per litre. Its pH value will be 119. (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 (3)  $C_{11} - C_{16}$  (4)  $C_{18} - C_{22}$ (1)  $C_6 - C_{11}$ (2)  $C_{20} - C_{30}$ 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 (1) glucose	s made by hydrolysis of s (2) fructose	starcl (3)	n 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.	<ul> <li>Wings of birds and insects are</li> <li>(1) vestigial organs</li> <li>(2) homologous organs</li> <li>(3) analogous organs</li> <li>(4) none of these</li> </ul>								
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								

Calciferol is (1) vitamin A 134.

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

- 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 4

136.

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

137. 3

## 138. In leukemia

3

- (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.

- 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			Jainism	(4) Shaivism
			(0)	Jamisin	
141.	2				
142.	The language of sang	am 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

- (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

- 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

- 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

- 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<sup>th</sup> 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

#### 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

- 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

- 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

- 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 (1) $\sin\theta$	to (2) $\cot \theta$	(3)	sec $ heta$ s	(4) 1
181.	1	· · /	( )		
182.	For the maximum value	e 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 8	$x^{3} + 27y^{3} + z^{3} \div xyz$ is equivalent of $x^{3} + 27y^{3} + z^{3} \div xyz$	ual to	40	(-1) 0
	(1) 0	(2) 6	(3)	18	(a) 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	2			2
185.	If the volume of two sph	neres are in the ratio is $6$	4:27	then the ratio of th	eir 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 expr	ression $(a^2 - 1)$ and $pa^2$ -	-q(a +	+1) is $(a-1)$ then r	elation between p and q will
	be (1) $p = q$				
	(2) $p = 2q$ (3) $n = 2q + 1$				
	(3) $p = 2q + 1$ (4) $p = q + 1$				
186.	2				
187.	The measures of the fiv	ve angles of a hexagon a	re eq	ual and the sixth ar	igle measures 100 <sup>0</sup> , then the
	measure of each of the (1) $120^{\circ}$	five angle is	-		-
	(1) $120^{\circ}$ (2) $124^{\circ}$				
	(3) $128^{\circ}$ (4) $130^{\circ}$				
187.	2				
	$(0.7)^0$ –	$-(0.1)^{-1}$			
188.	The value of $\frac{(31)^{-1}}{\left(\frac{3}{8}\right)^{-1}\left(\frac{3}{2}\right)^{-1}}$	$\frac{(1-1)^{3}}{3} + \left(-\frac{1}{3}\right)^{-1}$ 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) <i>ab</i>	(2) $\sqrt{b}$	(3)	$\sqrt{a}$	(4) √ <i>ab</i>
189.	4				
190.	If $p = x + \frac{1}{x}$ then the value	lue of $p - \frac{1}{n}$ will be			
	(1) $3x$	F			
	(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 line (1) $0^{0}$ (2) $90^{0}$ (3) $180^{0}$ (4) $60^{0}$	<b>s</b> $6 + x = 0$ and $3 - y = 0$	will b	e	
192.	2				
193.	If number $6, 8, 2, x - 5, 2$	2x - 1, 15, 17, 20 and 22 a	are in a	ascending order an	d 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	e of (z	A'− <i>B</i> ') is	
	(1) $\{2, 5\}$ (2) $\{3, 5\}$				
	(3) {1,7}				
	<b>(4)</b> {1,2,4,6}				
194.	3				
195.	Factors of $\frac{1}{3}c^2 - 2c - 9$	are			
	(1)				
	(1) $\left(\frac{1}{3}c+3\right)(c+3)$				
	(1) $\left(\frac{1}{3}c+3\right)(c+3)$ (2) $\left(\frac{1}{3}c-3\right)(c-3)$				

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

$$3$$

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<sup>3</sup>
- (2)  $2\sqrt{a^2+b^2+c^2}$  m<sup>3</sup>
- (3)  $2\sqrt{abc} \text{ m}^3$
- (4)  $6\sqrt{abc}$  m<sup>3</sup>