NTSE – 2018

Total Time
90 Minutes

PART - 2

Total Marks
100

Exam Date : 04/11/2018

Q.Booklet No.
153611
SEAL SEAL SEAL

SEAT NO.

INSTRUCTION FOR STUDENTS

Please read the following instruction carefully, and then answer the question on OMR answer sheet.

1. This paper contains PART-2 (SCHOLASTIC APTITUDE TEST) questions.

Part	Part Name	Que.No.	Time	Marks
2	SCHOLASTIC APTITUDE TEST	1 To 100	90 Minutes	100

2. This section will be 90 minutes.
3. **All questions are compulsory.**
4. The blank pages are given in this question booklet for rough work.
5. You must have to submit the OMR Sheet to the invigilator on completion the examination.

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SPACE FOR ROUGH WORK

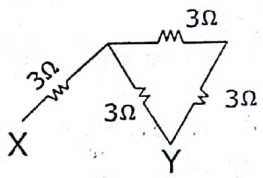
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1	$(A \cap B')' =$ ____ (A) $A \cup B'$ (B) $A' \cup B$ (C) $A \cup B$ (D) $A \cap B$
2	The supplementary angle of the complementary angle of angle having measure 23 has measure _____ . (A) 67 (B) 90 (C) 113 (D) 23
3	The width of the class 55.5 - 60.5 is _____ . (A) 10 (B) 5 (C) 2.5 (D) 7
4	$\overline{AD}$ and $\overline{BE}$ are the altitudes of $\triangle ABC$. If AD = 6 cm, BC = 16 cm, BE = 8 cm, then CA = _____ cm. (A) 12 (B) 18 (C) 24 (D) 10
5	If one factor of the polynomial $x^3 + 4x^2 - 3x - 18$ is $x + 3$, then the other factor is _____. (A) $x^2 + x$ (B) $x^2 + x + 6$ (C) $x^2 + x - 6$ (D) $x^2 - x + 6$
6	If G.C.D. of two numbers is 8 and their product is 384, then their L.C.M. is _____. (A) 24 (B) 16 (C) 32 (D) 48
7	The sum of the zeros of $3x^2 + 5x - 2$ is _____ . (A) $\frac{3}{5}$ (B) $-\frac{3}{5}$ (C) $\frac{5}{3}$ (D) $-\frac{5}{3}$
8	If in a two digit number, the digit at unit place is y and the digit at tens place is 7, then the number is _____ . (A) 70y + 7 (B) y + 7 (C) y + 70 (D) 10y + 7
9	If the correspondence ABC $\leftrightarrow$ EFD is a similarity in $\triangle ABC$ and $\triangle DEF$, then _____ of the following is not true. (A) $\frac{BC}{DF} = \frac{AC}{DE}$ (B) $\frac{AB}{DE} = \frac{BC}{DF}$ (C) $\frac{AB}{EF} = \frac{AC}{DE}$ (D) $\frac{BC}{DF} = \frac{AB}{EF}$
10	In $\triangle ABC, m\angle B = 90, AB = BC$. Then AB : AC = _____ . (A) 1 : 3 (B) 1 : 2 (C) $1 : \sqrt{2}$ (D) $\sqrt{2} : 1$
11	The diagonal of a square is $5\sqrt{2}$. The length of the side of the square is _____ . (A) 10 (B) 5 (C) $3\sqrt{2}$ (D) $2\sqrt{2}$

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12	The foot of the perpendicular from P(-3, 2) to the Y - axis is M. co-ordinates of M are ___. (A) (3, 0) (B) (0, 2) (C) $\left(\frac{3}{2}, -1\right)$ (D) (-3, 2)
13	If $\text{ten}5\theta . \tan 4\theta = 1$, then θ is ____. (A) 7 (B) 3 (C) 10 (D) 9
14	For right angle ΔABC, $sin^2A + sin^2B + Sin^2C =$ ____. (A) 2 (B) 1 (C) 0 (D) -1
15	A chord of ⊙ (0 , 5) touches ⊙ (0, 3). Therefore, the length of the chord = _____ . (A) 8 (B) 10 (C) 7 (D) 6
16	A card is selected at random from well - shuffled pack of 52 cards. The probability that the selected card is not an ace is _____ . (A) $\frac{12}{13}$ (B) $\frac{4}{13}$ (C) $\frac{1}{13}$ (D) $\frac{13}{4}$
17	Two balanced dice are thrown once. The probability of getting sum of numbers is divisible by 5 is _____. (A) $\frac{29}{36}$ (B) $\frac{5}{36}$ (C) $\frac{1}{6}$ (D) $\frac{7}{36}$
18	If $\sqrt{3}$ and $-\sqrt{3}$ are the zeros of a polynomial p(x), then _____ is not the factor of the p(x). (A) $x + \sqrt{3}$ (B) $x - \sqrt{3}$ (C) $x^2 - 3$ (D) $x^2 + 3$
19	Equation $\frac{2}{3}x + \frac{3}{2}y = 5$ can be expressed in the standard form as _____ . (A) $2x + 3y - 5 = 0$ (B) $4x + 9y - 5 = 0$ (C) $4x + 9y + 30 = 0$ (D) $4x + 9y - 30 = 0$
20	$\frac{317}{3125}$ represents _____ (A) A terminating decimal (B) A non-recurring decimal (C) A recurring decimal (D) An Integer
21	100 meter = _____ nm. (A) 10^{-11} (B) 10^{11} (C) 10^{-9} (D) 10^{9}
22	Which is not an allotropes of carbon nanostructures ? (A) Fullerene (B) Graphene (C) Bucky - ball of Born atoms (D) Nanobuds

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23	What is speed of light in glass ? (A) 2×10^8 ms^{-1} (B) 2.25×10^8 ms^{-1} (C) 3×10^8 ms^{-1} (D) 1.75×10^8 ms^{-1}
24	Which equation not represent Snell's law ? (A) $\frac{n_2}{n_1} = \frac{sin\theta_1}{sin\theta_2}$ (B) $\frac{n_1}{n_2} = \frac{sin\theta_2}{sin\theta_1}$ (C) $n_1 sin\theta_1 = n_2 sin\theta_2$ (D) $n_1 sin\theta_2 = n_2 sin\theta_1$
25	National science day celebrates on _____ . (A) March 28 (B) January 28 (C) April 28 (D) February 28
26	When a milky and cloudy layer is formed on the eye lens of old age person, they lose their vision partially or completely. This type of situation is called _____ . (A) Myopia (B) Cataract (C) Hypermetropia (D) Presbyopia
27	Determine the equivalent resistance between points x and y in the following circuit.  (A) 5 Ω (B) 12 Ω (C) 9 Ω (D) 6 Ω
28	Which formula is not correct for R ?(R = Resistance) (A) $R = \frac{w}{I^2 t}$ (B) $R = \frac{V^2}{P}$ (C) $R = I^2 t$ (D) $R = \frac{P}{I^2}$
29	The unit of electric potential difference is _____ . (A) JC (B) J/C (C) J (D) C/J
30	Which is not correct ? (A) Acid + Base → Salt + Water (B) Acid+ Metal oxide → Salt + Water (C) Non-Metal oxide+Water → Base (D) Base + Metal → Salt + Hydrogen + Water
31	Which is weak acid ? (A) Oxalic acid (B) Hydrochloric acid (C) Nitric acid (D) Salphuric acid
32	What is chemical formula of milk of magnesia ? (A) $MgNO_3$ (B) $MgSO_4$ (C) $Mg(OH)_3$ (D) $Mg(OH)_2$
33	How many long wire can be drawn from a gram of gold ? (A) 2 centimeter (B) 2 meter (C) 2 kilometer (D) 200 meter

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34	Which alloy is used to preparation of statues ? (A) Bronze (B) Brass (C) Stoal (D) Duralumin
35	Which is not a step of metallurgy ? (A) Reduction (B) Roasting (C) Corrosion (D) Concentration of ore
36	_____ respire through lungs. (A) crabs (B) lizard (C) sepia (D) prawns
37	Anaerobic respiration takes place only in _____. (A) Mitochondria (B) Glands (C) Lungs (D) Cytoplasm
38	The small intestine receives the secretion from _____ . (A) Salivary glands (B) Stomach and liver (C) Liver and Salivary glads (D) Liver and Pancreas
39	Where in do the Pulmonary veins open ? (A) Left auricle (B) Left ventricle (C) Lungs (D) Right auricle
40	In the velli of ileum the absorption of lipids takes place through ... (A) Lymph ducts (B) Lymph capillaries (C) Blood capillaries (D) Lymph vessels
41	Which animals in the animal kingdom require the maximum amount of energy ? (A) Fishes Amphibians (B) Amphibians Reptiles (C) Mammals Reptiles (D) Birds - Mammals
42	It is found as four small glands. (A) Parathyroid gland (B) Adrenal gland (C) Pituitary gland (D) Thyroid gland
43	Whose excessive secretion causes the body to look like gorilla ? (A) GTH (B) PRL (C) GH (D) MSH
44	Which wave length of harmful UV - radiations is prevented by ozone layer in entering the Earth atmosphere ? (A) 210 - 300 nm (B) 200 - 310 nm (C) 120 - 210 nm (D) 400 - 700 nm

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45	Which of the following groups have only non-biodegradable components ? 1. wood, paper, leather 2. polythene, detergent, pvc 3. plastic, detergent, glass 4. plastic, glass, animal dug (A) 1 and 4 (B) only 3 (C) 2 and 3 (D) 1 and 3
46	A car accelerates uniformly from 18 km/h to 36 km/h in 5 sec. Calculate the accelaration. (A) 1 ms^{-2} (B) 3.6 ms^{-2} (C) 2 ms^{-2} (D) 2.6 ms^{-2}
47	What is the SI unit of momentum ? (A) g ms^{-1} (B) g m^2s^{-1} (C) kg ms^{-1} (D) kg ms^{-2}
48	What is mass of the moon ? (A) 6×10^{24} kg (B) 7.4×10^{22} kg (C) 6×10^{22} kg (D) 7.4×10^{24} kg
49	A boy of mass 50 kg runs up a staircase of 45 steps in 9 sec. If the height of each steps is 15 cm. Find his power. (Take g = 10 ms^{-2}) (A) 275 w (B) 350 w (C) 325 w (D) 375 w
50	When we go from solid to gaseous state, the speed of sound _____. (A) increases (B) increases or decreases (C) decreases (D) constant
51	What in formula of carbon tetrachloride ? (A) CCl_4 (B) CCl_3 (C) CCl_2 (D) CCl
52	What is the maximum number of electrons that can be accommodated in the outermost orbit ? (A) 2 (B) 8 (C) 3 (D) 18
53	The melting point of ice is _____ . (A) 273.15 k (B) 173.15 k (C) 373.5 k (D) 100 k
54	_____ is not an example of Aerosol. (A) Fog (B) Clouds (C) Mist (D) Shaving cream
55	Who give the defination of an element ? (A) Rebert Boyle (B) John Dalton (C) Lavoisier (D) Thomson

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56 _____ is also known as the 'suicide bags ' of a cell.

(A) Mitochendria (B) Lysosomes

(C) Plastids (D) Golgi Apparatus

57 _____ is not an example of simple Tissues.

(A) Parenchyma (B) Collenchyma (C) Sclerenchyma (D) Phloem

58 Which is example of the bryophyte ?

(A) spirogyra (B) ulothrix (C) ulva (D) marchantia

59 _____ is not an example of Echinodermata.

(A) Octopus (B) Sea star (C) Echinus (D) Antedon

60 Which is an example of chronic diseases ?

(A) Common cold (B) Asthma (C) Flu (D) Pneumonia

61 Who discovered the ' Cape of Good Hope ' ?

(A) Vasco-da-Gama (B) Bartholomew Diaz

(C) Columbus (D) Prince Henry

62 Who become the first Governer General of India ?

(A) Cornwallis (B) Wellesley

(C) Warren Hastings (D) Sir John Shore

63 There are how many commissions were formed in Paris " Peace Process " ?

(A) 48 (B) 58 (C) 68 (D) 79

64 Who was the Pioneer of armed revolution in Gujarat ?

(A) Aurobindo Ghosh (B) Baarindrakumar Ghosh

(C) Bal Gangadhar Tilak (D) Mahatma Gandhi

65 One lakh mill workers of 75 cotton mill industries in Ahmedabad went on peaceful strike for how many days ?

(A) 35 days (B) 95 days (C) 105 days (D) 2010 days

66 In which year union summit was held at Kuala Lumpur ?

(A) 2001 (B) 2003 (C) 2004 (D) 2009

67 In the year 1971, Bangladesh become an independent and sovereign country as earlier it was the part of which country ?

(A) India (B) Afganistan (C) China (D) Pakistan

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68	Who was appointed as the chairman of state reorganisation commission by Jawaharlal Nehru in 1953 ? (A) Mr. Hridaynath Kunzru (B) Mr. K. M. Panikkar (C) Jastice Fazal Ali (D) Dr. Sarvapalli Radhakrishnan
69	Which word was inserted in the constitution by 42nd Amendment 1976 ? (A) Social (B) Political (C) Sovereign (D) Secular
70	Who said this " To rule the regime there principles are the foundations. " (A) Mahatma Gandhi (B) Sardar Patel (C) Dr. B. K. Ambedkar (D) Dr. Rajendra Prasad
71	If any member of the Loksabha remains absent for a continuous period of how many days without informing the speaker then his seat is declared vacant ? (A) 60 (B) 70 (C) 80 (D) 105
72	The Judge who handles the criminal cases is called ? (A) District Judge (B) Muncif Magistrate (C) Sessions Judge (D) Supreme Court Judge
73	In which sea Lakshadweep Islands are located ? (A) Bay of Bengal (B) Arabian Sea (C) Red Sea (D) Mediterranean Sea
74	In our routine life, about how many types of minerals are used directly or indirectly ? (A) 100 types (B) 200 types (C) 300 types (D) 400 types
75	Which island in Brahmaputra is the largest riverine Island in the world ? (A) Drivar (B) Barren Island (C) Great Nicobar Island (D) Mazuli (Majuli)
76	Where is the Miradatar fair held in the Rajab Month 16 to 22nd ? (A) Girnar (B) Bhavnagar (C) Kwant (D) Unava
77	How many types of tunes have been described by Pandit Ahobale ? (A) 108 (B) 29 (C) 101 (D) 19

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78	Gujarati Poetry known as Garba and Garbi are chiefly associated with which types of Bhakti ? (A) Ram Bhakti (B) Hanuman Bhakti (C) Meera Bhakti (D) Krishna Bhakti
79	Dholka is a place between which two rivers ? (A) Narmada and Tapi (B) Sabarmati and Narmada (C) Bhogavo and Sabarmati (D) Sabarmati and Mahi
80	What was built in Lothal to facilitate the Ships ? (A) Hall (B) Dockyard (C) Pillar (D) Grill
81	In which language the earlier Buddhist literature was written ? (A) Hindi (B) Sanskrit (C) Magadhi (D) Pali
82	The ruler of vallabhi belonged to which Dynasty ? (A) Maitrak Dynasty (B) Vijay Nagar Dynasty (C) Mughal Dynasty (D) Vansh Dynasty
83	Who has written the book ' Bij Ganit ' ? (A) Shankaracharya (B) Bhaskaracharya (C) Vatsayayan (D) Maharshi Patanjali
84	Hindu caves are built during the reign of which dynasty ? (A) Ashoka Dynasty (B) Maurya Dynasty (C) Kunala Dynasty (D) Rashtrakuta Dynasty
85	How much percentage of the total land of India occupies Red Soil ? (A) 19 % (B) 29 % (C) 39 % (D) 40 %
86	Leopard belongs to which family ? (A) Lion (B) Tiger (C) Dog (D) Cat
87	Watermelon and Cucumber are of which types of agricultural crops in India ? (A) Kharif Crops (B) Zaid Crops (C) Rabi Crops (D) Plantation Crops
88	Which are the main source of surface water ? (A) Seas (B) Lakes (C) Rivers (D) Ponds

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89	In which country the Bauxite was found first time in 1921 ? (A) India (B) America (C) China (D) France
90	20 % rich people of the country share 40 % of National income and the Poorest 20 % people share how much percentage of National income ? (A) 30 % (B) 20 % (C) 10 % (D) 5 %
91	In which year the World Trade Organisation was established ? (A) 1950 (B) 1985 (C) 1995 (D) 2015
92	Where was the first time " Earth conference " organised in 1972 ? (A) Stockholm in Sweden (B) Imphal in India (C) Geneva in Switzerland (D) America in Washington
93	In which year Air Pollution Act was passed in India ? (A) 1961 (B) 1971 (C) 1981 (D) 1999
94	Concept of poverty was first propounded by director of which organisation ? (A) WTO (B) WHO (C) ECOSOC (D) UNICEF
95	According to census counting of 2011, how many educated unemployed were in India ? (A) 54 Million (B) 79 Million (C) 81 Million (D) 84 Million
96	Till 2015 there were how many employment exchange centers were in our country ? (A) 908 (B) 947 (C) 1010 (D) 1189
97	According to early hypothesis ' Varna System ' was based on how many occupations ? (A) 10 (B) 6 (C) 4 (D) 2
98	In which article of Indian Constitution Schedule tribes are included ? (A) Article - 341 (B) Article - 342 (C) Article - 29 (D) Article - 15
99	According to which Article, untouchability is totally eradicated and its practice in any form is prohibited ? (A) Article - 17 (B) Article- 29(a) (C) Article - 341 (D) Article - 25
100	After which year Terrorism has increased in Kashmir ? (A) 1962 (B) 1965 (C) 1988 (D) 1999

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SPACE FOR ROUGH WORK

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SPACE FOR ROUGH WORK

Q.Booklet No.
153611
SEAL SEAL SEAL

Leave the examination hall after handing over OMR SHEET to the block invigilator. Of any one commits such mistake; he/she will be considered ineligible for the examination.

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OMR- ઉત્તરપત્ર

STATE EXAMINATION BOARD, GANDHINAGAR

NATIONAL TALENT SEARCH EXAMINATION - 2018

Answer Sheet for Std. X

Seat Number

0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

૧. જોડેલ (આપેલ) બહુવિકલ્પ પ્રશ્નો ઉકેલવા માટેની / આપવી બોલપેનનો ઉપયોગ કરવો.
૨. બહુવિકલ્પ સંપૂર્ણ ઘેરો પૂર્ણ કરવાનું રહેશે.
૩. એક કરતા વધુ વિકલ્પો પૂર્ણ કર્યા બાદ જવાબમાં ફેરફાર કરી શકાશે નહીં.
૪. ઉત્તર પત્રક પર વધારાનું (કાપવું કામ) કરવું નહીં.
૫. ઉત્તર પત્રક પર કોઈ પણ પ્રકારનો કાપ / ફેરબદલી કરો નહીં તે જોવું.
૬. જે તે પ્રશ્નના અનુસંધાને વિકલ્પ બહુવિકલ્પ જ પૂર્ણ કરવું.
૭. આપેલાં ઉકેલાયા મુજબ ઉકેલ એક જ બહુવિકલ્પ પૂર્ણ કરવાનું રહેશે.

State Code: 3 7

Example

Correct way (સાચી રીત): (A) (B) (C) ●

Wrong way (ખોટી રીત): (A) (B) (C) ◐ / (A) (B) (C) ◑ / (A) ● (C) ●

OMR ANSWER SHEET NO.

1259

MEDIUM/ LANGUAGE

ENGLISH ○
GUJRATI ○

SCHOLASTIC APTITUDE TEST (PAPER-2)

001	A	B	C	D	026	A	B	C	D	051	A	B	C	D	076	A	B	C	D
002	A	B	C	D	027	A	B	C	D	052	A	B	C	D	077	A	B	C	D
003	A	B	C	D	028	A	B	C	D	053	A	B	C	D	078	A	B	C	D
004	A	B	C	D	029	A	B	C	D	054	A	B	C	D	079	A	B	C	D
005	A	B	C	D	030	A	B	C	D	055	A	B	C	D	080	A	B	C	D
006	A	B	C	D	031	A	B	C	D	056	A	B	C	D	081	A	B	C	D
007	A	B	C	D	032	A	B	C	D	057	A	B	C	D	082	A	B	C	D
008	A	B	C	D	033	A	B	C	D	058	A	B	C	D	083	A	B	C	D
009	A	B	C	D	034	A	B	C	D	059	A	B	C	D	084	A	B	C	D
010	A	B	C	D	035	A	B	C	D	060	A	B	C	D	085	A	B	C	D
011	A	B	C	D	036	A	B	C	D	061	A	B	C	D	086	A	B	C	D
012	A	B	C	D	037	A	B	C	D	062	A	B	C	D	087	A	B	C	D
013	A	B	C	D	038	A	B	C	D	063	A	B	C	D	088	A	B	C	D
014	A	B	C	D	039	A	B	C	D	064	A	B	C	D	089	A	B	C	D
015	A	B	C	D	040	A	B	C	D	065	A	B	C	D	090	A	B	C	D
016	A	B	C	D	041	A	B	C	D	066	A	B	C	D	091	A	B	C	D
017	A	B	C	D	042	A	B	C	D	067	A	B	C	D	092	A	B	C	D
018	A	B	C	D	043	A	B	C	D	068	A	B	C	D	093	A	B	C	D
019	A	B	C	D	044	A	B	C	D	069	A	B	C	D	094	A	B	C	D
020	A	B	C	D	045	A	B	C	D	070	A	B	C	D	095	A	B	C	D
021	A	B	C	D	046	A	B	C	D	071	A	B	C	D	096	A	B	C	D
022	A	B	C	D	047	A	B	C	D	072	A	B	C	D	097	A	B	C	D
023	A	B	C	D	048	A	B	C	D	073	A	B	C	D	098	A	B	C	D
024	A	B	C	D	049	A	B	C	D	074	A	B	C	D	099	A	B	C	D
025	A	B	C	D	050	A	B	C	D	075	A	B	C	D	100	A	B	C	D

પ્રમાણપત્ર

પ્રશ્નપત્ર તથા OMR શીટ સીલબંધ કવરમાં મળેલ છે.	ઉમેદવારનો ફોટો, હાજરી પત્રક અને ઉત્તરપત્રમાં ઉમેદવારની સહીની ચકાસણી કરેલ છે. હાજરી પત્રક અને ઉત્તરપત્રમાંની તમામ વિગતો ઉમેદવાર દ્વારા ભરવામાં આવી છે.
ઉમેદવારની સહી	બ્લોક સુપરવાઈઝરની

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