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NTSE STAGE - 2

PRACTICE TEST PAPER

CLASS -X

SCHOLASTIC APTITUDE TEST (SAT)

Time : 1½ Hr.

Max. Marks : 100

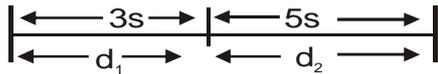
GENERAL INSTRUCTIONS

1. The booklet given in the examination hall is the Question Paper.
2. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help of HB Pencil as the correct answer(s) of the question attempted.
3. **The question paper contains 100 questions, 40 Questions from Science (1-40), 20 Questions from mathamtics (41-60), 40 Question from Social Science (61-100), each carries one mark.**
4. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
5. Write your **Name & Roll No.** in the space provided in the bottom of this booklet.
6. **There is 1/3 negative marking for each wrong answer. So attempt each question carefully.**
7. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
8. In case of any dispute, the answer sheet available with the institute shall be final.

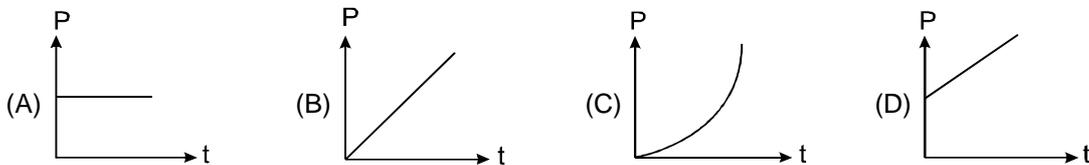
SAT PAPER

SCIENCE

1. A man stands in between two cliffs and fires a gun. He hear two successive echoes after 3s and 5s. What is the distance between the two cliffs ? (speed of sound = 330 ms^{-1})
 (A) 1230 m (B) 1320 m (C) 320 m (D) 230 m



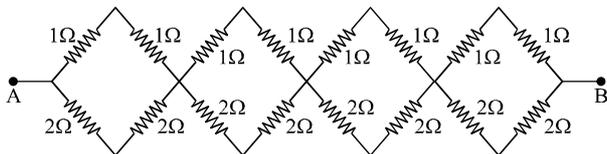
2. The separation between two consecutive crests in a transverse wave is 100 m. If the wave velocity is 20 m/s, find the frequency of wave.
 (A) 0.2Hz (B) 0.02Hz (C) 2Hz (D) 20Hz
3. A body moves under the action of a constant force along a straight line. The instantaneous power developed by this force with time t is correctly represented by (initial velocity is zero):



4. A block of mass M is pulled by a constant power P placed on a rough horizontal place. The friction coefficient between the block & surface is μ . Find the maximum velocity of the block.
 (A) $\frac{P}{mg}$ (B) $\frac{\mu P}{mg}$ (C) μPmg (D) $\frac{P}{\mu mg}$
5. Two bodies A and B of mass 500 g and 200 g respectively are dropped near the earth's surface. Let the acceleration of A and B be a_A and a_B respectively, then :
 (A) $a_A = a_B$ (B) $a_A > a_B$ (C) $a_A < a_B$ (D) $a_A \neq a_B$
6. Two identical heater wires are first connected in series and then in parallel with a source of electricity. The ratio of heat produced in the two cases is :
 (A) 2 : 1 (B) 1 : 2 (C) 4 : 1 (D) 1 : 4

Space For Rough Work

7. The equivalent resistance between A and B in the circuit shown is (all the resistance are in ohm) :



- (A) $\frac{13}{3}\Omega$ (B) $\frac{3}{13}\Omega$ (C) $\frac{16}{3}\Omega$ (D) $\frac{3}{16}\Omega$

8. The unit of the constant of proportionality used in coulomb's law is :
 (A) N (B) Nm^2C^{-2} (C) Nm^2 (D) none of these.

9. Light ray AB incidents on a plane mirror XY at an angle of 50° . The second plane mirror is placed in such a way that the reflected ray BC from the mirror XY retraces its path. Angle of inclination of two mirrors will be :
 (A) 25° (B) 50° (C) 75° (D) 90°

10. An aircraft has a take off velocity of 180 km/h. What length of run way is needed ? The acceleration of aircraft along the run way is 2.5 m/s^2 :
 (A) 100 m (B) 150 m (C) 320 m (D) 500 m

11. A body of mass m is moving on a circular path of radius r with constant speed V. After half round the change in momentum of the body is :
 (A) mv (B) 2mv (C) $\frac{mv}{2}$ (D) 4mv

12. Waves on the surface of water are :
 (A) longitudinal (B) transverse
 (C) combination of longitudinal and transverse (D) none of these

13. Lenz's law is a consequence of the law of conservation of :
 (A) energy (B) momentum
 (C) angular momentum (D) charge and mass

14. Maximum temperature that can be attained in box type solar cooker is :
 (A) 20°C to 50°C (B) 10°C to 20°C (C) 100°C to 140°C (D) 300°C to 350°C

Space For Rough Work

15. A bullet of mass 0.01 kg is fired from a gun weighing 5.0 kg. If the initial speed of the bullet is 250 m/s, calculate the speed with which the gun recoils :
- (A) – 0.50 m/s (B) – 0.25 m/s (C) + 0.05 m/s (D) + 0.25 m/s
16. Mixture of sulphur and sand can be separated by using :
- (A) carbon disulphide (B) water (C) alcohol (D) sulphuric acid
17. The maximum number of electrons in a sub-shell is given by the expression -
- (A) $2\ell + 1$ (B) $4\ell - 2$ (C) $4\ell + 2$ (D) $2\ell^2$
18. The percentage of nitrogen in urea is about :
- (A) 38.4 (B) 46.6 (C) 59.1 (D) 61.3
19. Lead nitrate on heating produces brown fumes of :
- (A) nitrogen dioxide (B) oxygen (C) lead oxide (D) nitrous oxide
20. A, B and C are hydroxy-compounds of the elements X, Y and Z respectively. X, Y and Z are in the same period of the periodic table. 'A' gives an aqueous solution of pH less than seven. 'B' reacts with both strong acids and strong alkalis. C gives an aqueous solution which is strongly alkaline Which of the following statement is/are true ?
- I : The three elements are metals.
 II : The electronegativities decreases from X to Y to Z.
 III : The atomic radius decreases in the order X, Y and Z.
 IV : X, Y and Z could be phosphorus, aluminium and sodium respectively.
- (A) I, II, III only correct. (B) I, III only correct. (C) II, IV only correct. (D) II, III, IV only correct.
21. Aqueous solution of a salt is acidic in nature. The salt is formed from :
- (A) strong acid and strong base (B) strong acid and weak base
 (C) weak acid and strong base (D) weak acid and weak base
22. The compounds A,B and C in the following reaction sequence are -
- $$A \xrightarrow{\text{Diastase}} B \xrightarrow{\text{Maltase}} C \xrightarrow{\text{Zymase}} C_2H_5OH + CO_2$$
- (A) starch, sucrose, fructose (B) sucrose, maltose, glucose
 (C) starch, maltose, glucose (D) starch, sucrose, glucose

Space For Rough Work

23. **Column-I** and **Column-II** contains four entries each. Entries of **Column-I** are to be matched with some entries of **Column-II**. One or more than one entries of **Column-I** may have the matching with the same entries of **Column-II**.

Column-I	Column-II
(A) Mond's process	(p) $\text{Cr}_2\text{O}_3 + 2\text{Al} \xrightarrow{\Delta} 2\text{Cr} + \text{Al}_2\text{O}_3$
(B) van Arkel process	(q) $\text{TiCl}_4 + 2\text{Mg} \xrightarrow{\Delta} \text{Ti} + 2\text{MgCl}_2$
(C) Thermite process	(r) $\text{Ni}(\text{CO})_4 \xrightarrow{\Delta} \text{Ni} + 4\text{CO}$
(D) Kroll's process	(s) $\text{ZrI}_4 \xrightarrow{\Delta} \text{Zr} + 2\text{I}_2$
(A) (A) - (r) ; (B) - (s) ; (C) - (p) ; (D) - (q)	(B) (A) - (s) ; (B) - (r) ; (C) - (p) ; (D) - (q)
(C) (A) - (r) ; (B) - (s) ; (C) - (q) ; (D) - (p)	(D) (A) - (r) ; (B) - (q) ; (C) - (p) ; (D) - (s)

24. The half life of a radioactive element is 35 years. If there are 4×10^6 nuclei at the start, then after how many year 0.5×10^6 nuclei will be left ?
 (A) 35 (B) 70 (C) 105 (D) 140
25. The natural gas, found with petroleum in oil wells is :
 (A) mainly methane - a hydrocarbon (B) a mixture of sulphur and hydrogen
 (C) a mixture of carbon, hydrogen and oxygen (D) an inorganic compound.
26. In amoeba absorption of the digested nutrients occurs in
 (A) cytoplasm (B) plasma membrane (C) contractile vacuole (D) pseudopodia
27. Passage of air through the respiratory tract during inspiration is :
 (A) Nostril - Nasal cavity - Larynx - Pharynx - Bronchus - Trachea - Bronchioles - Alveoli
 (B) Nostril - Nasal cavity - Pharynx - Larynx - Trachea - Bronchus - Bronchioles - Alveoli
 (C) Nostril - Nasal cavity - Larynx - Pharynx - Trachea - Bronchus - Bronchioles - Alveoli
 (D) Nostril - Nasal cavity - Bronchioles - Bronchus - Larynx - Pharynx - Trachea - Alveoli
28. In the cardiac cycle, diastole is
 (A) the number of heart beats per minute
 (B) the relaxation period after contraction of the heart
 (C) the forceful pumping action of the heart
 (D) the contraction period after relaxation of the heart
29. Osmosis is defined as the process in which -
 (A) water diffuses from lower concentration to higher concentration of the solution through semipermeable membrane
 (B) solvent diffuses from lower concentration to higher concentration
 (C) active transport of ions takes place
 (D) passive transport of ions takes place

Space For Rough Work

30. The biochemical reactions of ornithine cycle take place in -
 (A) pancreas (B) stomach (C) liver (D) kidney
31. Match the hormones in list I with items in list II and select the correct answer using the codes given below :
- | | |
|-----------------|-----------------------------------------------|
| List - I | List - II |
| a. Adrenalin | 1. Anger, fear, danger |
| b. Estrogen | 2. Attracting partners through sense of smell |
| c. Insulin | 3. Female sex hormone |
| d. Pheromones | 4. Glucose |
- a b c d
- (A) 1 3 4 2
 (B) 1 3 2 4
 (C) 3 1 4 2
 (D) 3 1 2 4
32. Testosterone is secreted by
 (A) Leydig cells (B) Sertoli cells (C) Pituitary cells (D) Testis
33. Match the columns
- | | |
|------------------------|--------------------------|
| Column - I | Column - II |
| (a) Stock | (i) Pollination by snail |
| (b) Endogenous budding | (ii) Sponge |
| (c) Microspore | (iii) Pollination by air |
| (d) Malacophily | (iv) Scion |
| (e) Anemophily | (v) Anther |
- (A) a - (ii), b - (iv), c - (v), d - (iii), e - (i)
 (B) a - (iv), b - (ii), c - (v), d - (iii), e - (i)
 (C) a - (iv), b - (ii), c - (v), d - (i), e - (iii)
 (D) a - (ii), b - (iv), c - (v), d - (i), e - (iii)
34. DNA finger printing refers to
 (A) molecular analysis of profiles of DNA samples.
 (B) analysis of DNA samples using imprinting devices.
 (C) use for DNA synthesis
 (D) synthesis by bacteria as a part of their defense mechanism.

Space For Rough Work

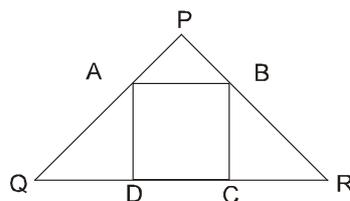
35. A fossil is a / an –
(A) laboratory preserved animal (B) dead animal of the past
(C) organic relic of the past (D) living animal
36. During activation of nerve, the nerve impulse is conducted in a fibre by -
(A) more movement of K^+ ions towards inside and Na^+ ions outside.
(B) less Na^+ coming out and more K^+ coming in
(C) equal movement of both ions
(D) more movement of Na^+ ions towards inside and K^+ ions outside
37. Which one of the following lack blood supply ?
(A) Bone (B) Connective
(C) Cartilage (D) Vessels
38. Which tissue provides mechanical strength to plant
(A) Sclerenchyma (B) Parenchyma (C) Collenchyma (D) Chlorenchyma
39. Damp grains in storage gets heated due to
(A) infestation by insects (B) decrease in humidity
(C) decrease in atmospheric pressure (D) due to heat release during respiration
40. All chordates possess
(A) exoskeleton (B) limbs
(C) skull (D) axial skeletal rod of notochord

MATHEMATICS

41. The number $(1024)^{1024}$ is obtained by raising $(16)^{16}$ to the power n. What is the value of n ?
(A) 64 (B) 64^2 (C) 64^{64} (D) 160
42. The number of distinct prime divisors of the number $512^3 - 253^3 - 259^3$ is :
(A) 4 (B) 5 (C) 6 (D) 7
43. A distributes Rs.180 equally among a certain number of people. B distributes the same sum but gives to each person Rs. 6 more than A does, and gives the same sum to 40 persons less than A does. How much does A give to each person ?
(A) Rs.1 (B) Rs.3 (C) Rs.5 (D) Rs.4

Space For Rough Work

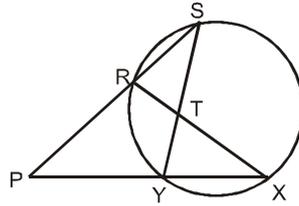
44. Two quadratic equations with positive roots have one common root. The sum of the product of all four roots taken two at a time is 192. The equation whose roots are the two different roots is $x^2 - 15x + 56 = 0$. The sum of all the four roots is :
 (A) 17 (B) 18 (C) 19 (D) 23
45. If $a^2 + b^2 + c^2 = 1$ and $p = ab + bc + ca$, then :
 (A) $\frac{1}{2} \leq p \leq 2$ (B) $-\frac{1}{2} \leq p \leq \frac{1}{2}$ (C) $-\frac{1}{2} \leq p \leq 1$ (D) $-1 \leq p \leq \frac{1}{2}$
46. Find the product of 11 terms in G.P., whose 6th term is 5.
 (A) 5^{12} (B) 5^{10} (C) 5^{11} (D) 5^9
47. If $\sin x + \sin^2 x = 1$, then the value of $\cos^{12}x + 3 \cos^{10}x + 3 \cos^8x + \cos^6x - 1$ is :
 (A) -1 (B) 0 (C) 1 (D) 2
48. If four points A (6, 3), B (-3, 5), C (4, -2) and D (x, 3x) are given in such a way that $\frac{\text{Area}(\triangle DBC)}{\text{Area}(\triangle ABC)} = \frac{1}{2}$, then the value of x is :
 (A) $\frac{3}{8}$ or $-\frac{14}{8}$ (B) 2 or -3 (C) $\frac{11}{8}$ or $-\frac{3}{8}$ (D) None of these.
49. The orthocentre of the triangle ABC is 'B' and the circumcentre is 'S' (a, b). If A is the origin then the co-ordinates of C are :
 (A) (2a, 2b) (B) $\left(\frac{a}{2}, \frac{b}{2}\right)$ (C) $\left(\sqrt{a^2+b^2}, 0\right)$ (D) None of these
50. The sides of a quadrilateral are all positive integers and three of them are 5, 10, 20. How many possible value are there for the fourth side ?
 (A) 29 (B) 31 (C) 32 (D) 34
51. A square ABCD is constructed inside a triangle PQR having sides 10, 17 and 21 as shown in figure. Find the perimeter of the square ABCD.



- (A) 28
 (B) 23.2
 (C) 25.4
 (D) 28.8

Space For Rough Work

52. In the adjoining figure, the chords XY and SR are produced to meet outside the circle at P. The chords XR and YS meet inside the circle at T. If $\angle X = x^\circ$ and $\angle XTS = y^\circ$, then $\angle P$ is equal to :



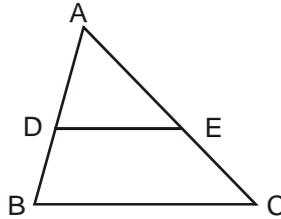
- (A) $(x + y)^\circ$ (B) $(y - x)^\circ$ (C) $2(y - x)^\circ$ (D) $(y - 2x)^\circ$
53. A cow is tied to a corner (vertex) of a regular hexagonal fenced area of side a meters by a rope of length $\frac{5a}{2}$ meters in a grass field. (The cow cannot graze inside the fenced area.) What is the maximum possible area of the grass field to which the cow has access to graze ?
- (A) $5\pi a^2$ (B) $\frac{5}{2}\pi a^2$ (C) $6\pi a^2$ (D) $3\pi a^2$
54. The circumference of the front wheel of a cart is 30 feet long and that of the back wheel is 36 feet long. What is the distance travelled by the cart, when the front wheel has done five more revolutions than the rear wheel ?
- (A) 20 ft (B) 25 ft (C) 750 ft (D) 900 ft
55. If the centroid of the triangle formed by the points (a, b) , (b, c) and (c, a) is at the origin, then $a^3 + b^3 + c^3 =$
- (A) abc (B) $a + b + c$ (C) $3abc$ (D) 0
56. A 4-digit number is formed by repeating a 2-digit number such as 2525, 3232 etc. Any number of this form is exactly divisible by :
- (A) 7 (B) 11
(C) 13 (D) Smallest 3-digit prime number
57. A number x is chosen at random from the numbers $-3, -2, -1, 0, 1, 2, 3$. The probability that $|x| < 2$ is :
- (A) $\frac{5}{7}$ (B) $\frac{3}{7}$ (C) $\frac{2}{7}$ (D) $\frac{1}{7}$
58. The pair of equations $3^{x+y} = 81$, $81^{x-y} = 3$ has :
- (A) No solution (B) The solution $x = 2\frac{1}{2}$, $y = 2\frac{1}{2}$
(C) The solution $x = 2$, $y = 2$ (D) The solution $x = 2\frac{1}{8}$, $y = 1\frac{7}{8}$

Space For Rough Work

59. A person on the top of a tower observes a scooter moving with uniform velocity towards the base of the tower. He finds that the angle of depression changes from 30° to 60° in 18 minutes. The scooter will reach the base of the tower in next :

- (A) 9 minutes (B) $18 / (\sqrt{3} - 1)$ minutes
 (C) $6\sqrt{3}$ minutes (D) the time depends upon the height of the tower

60. In the figure shown below, $DE \parallel BC$ and $AD = 3x - 2$, $AE = 5x - 4$, $BD = 7x - 5$ and $CE = 5x - 3$. Therefore, the value of x is :



- (A) only 1 (B) only $\frac{7}{10}$ (C) 1 or $\frac{7}{10}$ (D) $\frac{10}{7}$

SOCIAL SCIENCE

61. Assertion :

(A) The tropical rainforests are mostly evergreen

Reason :

(R) The regions of tropical rainforests get abundant rainfall & have low temp. throughout the region :

- (A) Both A & R are true & R explains A (B) Both A & R are true but R does not explain a.
 (C) A is true but R is false. (D) A is false but R is true.

62. Assertion :

(A) According to Mahatma Gandhi the idea of satyagraha was emphasised as power of truth.

Reason :

(R) It suggested that if the cause was true, if the struggle was against injustice, then physical force was not necessary to fight the oppressor.

- (A) A is false, R is true (B) A is true, R is false
 (C) Both A & R are true (D) Both A & R are false

63. Chutney Music was created by :

- (A) Indo-Caribbean (B) Indian Migrants (C) People of Mauritius (D) People in Fije Islands

Space For Rough Work

64. Give the correct chronological order of the following :
 (i) Jallianwalabagh Massacre (ii) Khilafat Movement (iii) Rowlatt Act.
 (A) iii, i, ii (B) i, ii, iii (C) ii, iii, i (D) i, iii, ii
65. Which of the following options do not relate to Simon commission ?
 (A) Simon commission arrived in 1928 (B) It consisted of only Englishmen
 (C) It was greeted with slogan "go back simon" (D) Indians rallied around it
66. What is Hosay ?
 (A) Christmas celebration
 (B) New year celebration
 (C) Holi-diwali celebration
 (D) Muharram procession in which workers of all races & religion joined
67. Six joint stock companies were set up by :
 (A) Dinshaw Petit (B) Dwarkanath Tagore
 (C) Jamsetjee Nausserwanjee (D) Seth Hukumchand
68. Match the column :
 Column - I Column – II
 (i) Bibliotheque Blew (i) Martin luther
 (ii) 95 thesis (ii) Rashsundari Debi
 (iii) Amar jiban (iii) Ramchaddha
 (iv) Istri Dharm Vichar (iv) Low Priced small Books
 (A) iv, i, ii, iii (B) iii, ii, i, iv (C) i, ii, iii, iv (D) ii, i, iv, iii
69. Premchand's sevasadan describes issue/issues like :
 (A) Child marriage & dowry (B) Illiteracy and superstition among Indian women
 (C) Unemployment among young boys (D) All of the above
70. Atolls are :
 (A) Square shaped reefs (B) Triangular shaped reefs
 (C) Circular or horse shoe shaped coral reefs. (D) None of the above
71. Match the coloumn :
Coloumn- I **Coloumn-II**
 (i) Depressed class Association (i) B. R. Ambedkar
 (ii) Eight lotuses (ii) Pt. Jawahar lal Nehru
 (iii) Demand for Purna Swaraj (iii) Representing 8 provinces of British India
 (iv) Ahmedabad Mill Movement (iv) Gandhiji
 (A) i, iii ii, iv (B) i, ii, iii, iv (C) iv, i, iii, ii (D) ii, i, iii, iv

Space For Rough Work

72. Assertion :
(A) Railways in London initially appeared as "Iron Monsters"
Reason :
(R) The compartment in which I sat was filled with passengers who were smoking pipes.
(A) Both A & R are true & R explains A
(B) Both A & R are true but R does not fully explain A
(C) Both A & B are true
(D) Both A & B are false.
73. Which states are drained by river Tapi :
(A) Maharashtra, Karnataka, Gujarat (B) M.P., Maharashtra, Rajasthan
(C) Gujarat, M.P., Maharashtra (D) Maharashtra, Gujarat, Rajasthan
74. Which one of the following is true about, Pradhan Mantri Grameen Sadak Yojana ?
(A) A scheme for development of National Highway
(B) A scheme for village road connection
(C) A scheme for Border Roads
(D) A scheme for mountain road
75. What is the extent of an elongated low pressure belt over India during the end of May ?
(A) Thar desert to Patna and Chotanagpur plateau.
(B) Chotanagpur plateau to Himalayas
(C) Thar desert to Chotanagpur plateau
(D) Thar desert to northern plains
76. Assertion :
(A) Multipurpose projects were referred to as Temples of Modern India
Reason
(R) Some important temples were built here.
(A) Both A & R are true & R explains A (B) Both A & R are false
(C) Both A & R are true (D) A is true but R is false
77. "There is enough for everybody's need but not for anybody's greed". These were the view points given by:
(A) J.L. Nehru (B) M.K. Gandhi (C) Vinoba Bhave (D) Lal Bahadur Shastri
78. Which one of the following is not correctly matched ?
(A) Corbett National Park, Uttarakhand (B) Sanderbans, West Bengal
(C) Bandhav National Park, M.P. (D) Manas Tiger reserve, Arunachal Pradesh
79. Which of the following cause is not related with underground water depletion :
(A) Overdraft of water for irrigation in rural areas.
(B) Excessive use of water in Urban areas
(C) Decline in sewage due to cementation of spaces used by man.
(D) Excessive evaporation of underground water.

Space For Rough Work

80. Assertion :
(A) Slash & burn agriculture was practised in most parts of India.
Reason :
(R) The right of inheritance has led to the division of land among successive generations has rendered landholding size uneconomical and there is enormous pressure on land.
(A) A is true but R is false (B) A is false but R is true
(C) Both A & R are true & R explains A (D) Both A & R are true but R does not explain A.
81. Consider the following statements :
(i) In India cropland occupies 57% of the total area
(ii) Pastures account for 56% area in Australia
(iii) About 2/3rd area in Japan is under forests.
What should be understood from the above statements ?
(A) India has an efficient land use system while most of the land in Australia and Japan is rendered waste
(B) India has subsistence agricultural economy, animal husbandry is the main stay of economy in Australia & forestry is the main activity in Japan.
(C) Most of the cultivable land in India is devoted to crop cultivation, in Australia cultivation of crops is confined to small proportion & most of the land is used for grazing Japan has conserved its forest resources.
(D) India has faulty land use system, Australia has extensive land use and Japan has small cultivable land.
82. Which of the following best describes "JETSTREAMS"
(A) Wind system with seas & reversal of direction.
(B) Wind blowing from subtropical high pressure belts towards the tropical low pressure belts.
(C) Narrow meandering bands of winds which blow in mid latitude near the tropopause and encircle the globe.
(D) Winds blowing from the tropical high pressure belts towards equatorial low pressure belts.
83. The Constitution of India declares that India is a :
(A) decentralization of states. (B) Union of states.
(C) Centralized unit. (D) the princely state.
84. Consider the following statement :
(A) In the tundra region, animals have thick fur & skin
(B) Most of the animals in grasslands are herbivores.
(C) In tropical rain forests, many animals live on tress.
Which of the following statements best explain these statements :
(A) Dependence of animals on natural vegetation
(B) Exploitation of wildlife and natural vegetation
(C) Relationship but density of vegetation & wildlife
(D) Adaptation to natural environment.

Space For Rough Work

91. Why is it important for our country to keep the mill sector loomage lower than power loomage ?
 (A) To provide scope for incorporating traditional skills and designs of weaving
 (B) To provide employment to large no. of people in the country.
 (C) So that marketing can be done easily
 (D) Less capital is invested.
92. Match the column :
- | Column - I | | Column - II | |
|-----------------------------------------------------------|----------------------------|----------------------------|----------------------------|
| (i) Sher Shah Suri Marg | | (a) NH - 15 | |
| (ii) Longest high way of India | | (b) NH - 8 | |
| (iii) Delhi and Mumbai Highway are connected by | | (c) NH - 7 | |
| (iv) National highway that connects most of the Rajasthan | | (d) NH - 1 | |
| (A) i-a, ii-b, iii-c, iv-d | (B) i-d, ii-c, iii-b, iv-a | (C) i-b, ii-c, iii-a, iv-d | (D) i-c, ii-b, iii-d, iv-a |
93. Favorable balance of trade refers to :
 (A) When value of imports exceeds the value of exports
 (B) When value of exports exceeds the value of imports
 (C) When value of imports & exports are equal
 (D) None of the above.
94. Assertion :
 (A) U.S. & its allies invade Iraq because :
 Reason
 (R) They suspected that Iraqis possessed secret nuclear weapons which posed a big threat to the world security
 (A) A & R are false
 (B) A is false & R is true
 (C) A is true but R is false
 (D) A is true & R is the correct explanation of A
95. Match the following :
- | Column - I | | Column - II | |
|----------------------------|----------------------------|----------------------------------------|----------------------------|
| (a) Gujjar Bakarwal | | (i) Vast meadows in high mountains | |
| (b) Gaddi Shepherds | | (ii) Pastoralists of J & K. | |
| (c) Bugyal | | (iii) Pastoralists of Himachal Pradesh | |
| (d) Raikas | | (iv) Pastoralists of Rajasthan | |
| (A) a-ii, b-iii, c-i, d-iv | (B) a-i, b-ii, c-iii, d-iv | (C) a-iii, b-ii, c-iv, d-i | (D) a-iv, b-iii, c-ii, d-i |
96. Assertion :
 (A) The Medals of Tommie smith and John Carlos were taken back when they reached to their country after Olympics
 Reason :
 (R) They stood on the dice with clenched fists upraised and heads bowed while the American anthem was played.
 (A) A is true but R is false
 (B) R is true but A is false
 (C) Both A & R are false
 (D) A is true but R does not full explanation of A

Space For Rough Work

97. Which one of the following is an example of overlapping differences ?
(A) Northern Ireland people are predominately Christians but divided between Catholics and Protestants & Catholics land to be poor & have suffered
(B) In India dalits tend to be poor & landless and often face injustice & discrimination.
(C) Descendants of Africa that follow one another
(D) Both A & B.
98. The french government sought to reassert its authority in Indo-China following world war II for which of the following reasons :
(A) Control of Indo-China would restore France flattering prestige.
(B) Indo-China possessed valuable oil reserves
(C) The french government feared that Vietnam would fall into anarchy in the absence of french rule
(D) Continued french control of Indo-China would prevent USSR from dominating South East Asia
99. Assertion :
(A) America's original inhabitants had no immunity against diseases like small pox.
Reason :
(R) They lived in isolation for million of years.
(A) A and R both are true (B) A & R both are false
(C) A did not explain R & vice-verse (D) A is false but R is true
100. Axis powers, consisted of group of countries which fought during the second world war. The countries are:
(A) Germany, England, France (B) Germany, USSR, France
(C) USSR, France, Italy (D) Germany, Italy & Japan

Space For Rough Work

NTSE STAGE-2
PRACTICE TEST PAPER
CLASS -X
MENTAL APTITUDE TEST (MAT)

Time : 45 Min.

Max. Marks : 50

GENERAL INSTRUCTIONS

1. The booklet given in the examination hall is the Question Paper.
2. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help of HB Pencil as the correct answer(s) of the question attempted.
3. **The question paper contains 50 questions. Each carries one mark.**
4. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
5. Write your **Name & Roll No.** in the space provided in the bottom of this booklet.
6. **There is 1/3 negative marking for each wrong answer. So attempt each question carefully.**
7. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
8. In case of any dispute, the answer sheet available with the institute shall be final.

MAT PAPER

Directions (1 and 2) : In each of the following questions find the next number of the given series –

1. 325, 259, 204, 160, 127, 105, ?
(A) 96 (B) 94 (C) 92 (D) 102
2. 16, 17, 21, 30, 46, 71, ?
(A) 98 (B) 91 (C) 107 (D) 103

Directions (3 and 4) : In each of the following question a number series is given. A number in the series is suppressed by letter 'A'. You have to find out the number in the place of 'A' and use this number to find out the value in the place of the question mark in the equation following the series.

3. 18, 24, A, 51, 72, 98, 129
 $A \times \frac{3}{7} \times \frac{4}{5} = ?$
(A) 12 (B) $11\frac{23}{35}$ (C) $12\frac{12}{35}$ (D) $14\frac{2}{5}$
4. 42, 62, 92, 132, A, 242, 312
 $A + 14 = ? \times 14$
(A) $11\frac{6}{7}$ (B) 14 (C) $12\frac{5}{7}$ (D) $12\frac{1}{2}$

Directions (5 to 7) : In such type of question, a figure, a set of figures or a matrix is given, each of which bears certain characters, be it numbers, letters or a group of letters/numbers, following a certain pattern. The candidate is required to decipher this pattern and accordingly find the missing character in the figure.

5.

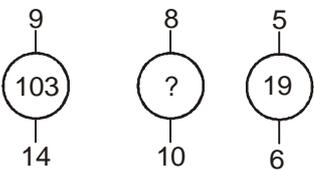
42	44	38
23	55	28
37	?	39

(A) 22 (B) 33 (C) 66 (D) 77
6.

51	11	61
64	30	32
35	?	43

(A) 25 (B) 27 (C) 32 (D) 37

Space For Rough Work

7. 
- (A) 62 (B) 102 (C) 84 (D) 74

Directions (8 to 9) : In the following question, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in the two given matrices. The columns and rows of matrix I are numbered from 0 to 4 and that of matrix II from 5 to 9. A letter from these matrices can be represented first by its row and next by column number e.g., in the matrices for questions A can be represented by 13, 23 etc. T can be represented by 58, 65 etc. Similarly, you have to identify the set for the word given in question.

	0	1	2	3	4
0	D	K	A	E	C
1	C	D	K	A	E
2	K	C	E	A	D
3	K	C	D	E	A
4	E	D	A	K	C

	5	6	7	8	9
5	P	L	O	T	N
6	T	P	N	L	O
7	P	N	T	O	L
8	O	N	T	P	L
9	L	O	P	N	T

8. **COLD**
 (A) 44, 96, 95, 22 (B) 31, 99, 77, 22 (C) 30, 66, 86, 43 (D) 10, 85, 79, 24
9. **POND**
 (A) 88, 99, 77, 33 (B) 75, 85, 67, 32 (C) 68, 99, 77, 33 (D) 57, 68, 89, 42

Directions (10 to 11) : In a certain code language if
 'pit na sa' means 'you are welcome'
 'na ho pa la' means 'They are very good'
 'ka da la' means 'who is good'
 'od ho pit la' means 'they welcome good people'.

10. Which of the following means 'people' in that code language?
 (A) ho (B) pit (C) la (D) od
11. Which of the following means 'very' in that code language?
 (A) na (B) da (C) pa (D) data inadequate

Space For Rough Work

12. If **MATCH** is coded as **NCWGM** and **BOX** as **CQA**, then **OQWIGUVS** is encoded for what ?
 (A) NOTE BOOK (B) NOTE BOKE (C) NOTF BOPE (D) MOKE BOOT
13. If "SMALL" is coded a "BIG", "LITTLE" is coded as "THIN", then how will "STANDARD" be coded as :
 (A) BIGGER (B) BIGGEST (C) HEAVY (D) HUGE
14. If Rain means Water, Water means Road, Road means Cloud, Cloud means Sky, Sky means Sea and Sea means Path, then where does an aeroplane fly :
 (A) Sky (B) Sea (C) Path (D) Cloud
15. One morning after sunrise, Vikram and Shailesh were standing in a lawn with their backs towards each other. Vikram's shadow fell exactly towards left hand side. Which direction was Shailesh facing :
 (A) East (B) West (C) North (D) South
16. A person moves towards north a distance of 13 m from a point P and reaches at Q. He turns 135° in clockwise direction and goes $25\sqrt{2}$ m. From here he turns 135° clockwise and goes 20 m. How far did he from initial point :
 (A) 25 m (B) 20 m (C) 13 m (D) 30 m

Directions (17) : Read the following information carefully and give the answer :

'L % M' means that M is brother of L 'L × M' means that L is mother of M
 'L ÷ M' means that L is the sister of M 'L = M' means that M is father of L

17. Which of the following means "I is the nephew of Q" :
 (i) $Q \% J = I$
 (ii) $Q \div M \times B \% I$
 (iii) $C \div I = B \% Q$
 (A) Only (iii) (B) Only (i) (C) Only (ii) (D) None of these
18. Pointing to a person in a photograph, Raman said, " She is the only daughter of the mother of my brother's sister." How is that person related to Raman?
 (A) Uncle (B) Father (C) Mother (D) None of these

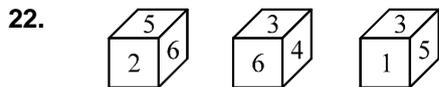
Directions (19 to 21) : Read the following information and answer the questions.

1. Natasha and Dharmesh are children of Mr Das.
2. Natasha married Romesh Chopra. Sumant, Sanjeev and Somu are born to them.
3. Sumant is married to the eldest daughter of Mr. and Mrs. Rai.
4. Beena is younger to Roma and older than Seema and all are daughters of Mr. and Mrs. Rai.
5. Anjali is Sumant's daughter.

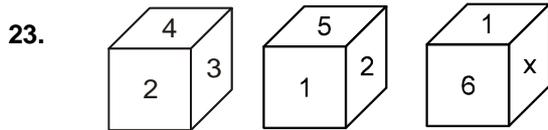
19. What is Sanjeev's surname ?
 (A) Das (B) Rai (C) Chopra (D) None of these
20. Who is married to Sumant ?
 (A) Beena (B) Sita (C) Roma (D) Meeta

Space For Rough Work

21. How is Dharmesh related to Somu ?
 (A) Brother-in-law (B) Uncle (C) Maternal uncle (D) Brother



- Which number is opposite to 4 :
 (A) 5 (B) 3 (C) 2 (D) 6



- From the above figures of dice, find which number will come in place of 'x' :
 (A) 4 (B) 5 (C) 2 (D) 3

Direction (24 to 28) : A cube is coloured red on two opposite faces, blue on two adjacent faces and yellow on two remaining faces. It is then cut into two halves along the plane parallel to the red faces. One piece is then cut into four equal cubes and the other one into 32 equal cubes.

24. How many cubes do not have any coloured face ?
 (A) 0 (B) 16 (C) 4 (D) 8
25. How many cubes do not have any red face ?
 (A) 8 (B) 16 (C) 20 (D) 24
26. How many cubes have at least two coloured face?
 (A) 20 (B) 24 (C) 28 (D) 32
27. How many cubes have each a yellow face with other faces without colour ?
 (A) 4 (B) 14 (C) 17 (D) 20
28. How many cubes have at least one face painted blue ?
 (A) 4 (B) 14 (C) 17 (D) 20
29. Smt Indira Gandhi died on 31st October, 1984. The day of the week was:
 (A) Monday (B) Tuesday (C) Wednesday (D) Friday
30. At what time between 9 a.m. and 10 a.m. will be the hands of clock point in opposite directions?
 (A) $15\frac{4}{11}$ min.past 9 a.m. (B) $17\frac{4}{11}$ min.past 9 a.m.
 (C) $14\frac{4}{11}$ min.past 9 a.m. (D) $16\frac{4}{11}$ min.past 9 a.m.

Space For Rough Work

31. At 9 A.M. on Sunday one watch is 5 min. fast and the second watch is 6 min. slow. If on Wednesday at 5 P.M. the first watch is 1 min. slow and the second one is 3 min fast, two watches will agree at ?
 (A) Tuesday 7 : 40 A.M. (B) Tuesday 02 : 20 P.M.
 (C) Tuesday 7 : 40 P.M. (D) Tuesday 10 : 40 P.M.

Directions (32 to 33) : In the given question, two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the conclusions logically follows from the two given statements. Give answer.

- (A) If only conclusion I follows; (B) If only conclusion II follows;
 (C) If either I or II follows; (D) If both I and II follow

32. **Statements :** All windows are doors.
 No door is wall.

- Conclusions :** I. No window is wall.
 II. No wall is door.

33. **Statements :** All locks are keys.
 No key is a spoon.

- Conclusions :** I. No lock is a spoon
 II. No spoon is a lock.

34. **Select the alternative that has 3rd statement implied by the first two :**

- (A) All monkeys are copy cats. All men are cheaters. So all men are monkeys.
 (B) All men are clever. Some Indians are men. So, all Indians are clever.
 (C) All rings are round. All circles are rings. So all round are circles.
 (D) All ABC can eat. All DEF are ABC. So, all DEF can eat.

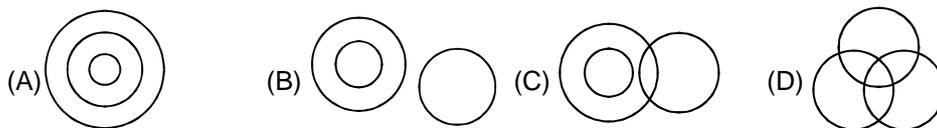
35. A clock is set right at 4 a.m. The clock loses 20 minutes in 24 hours. What will be the true time when the clock indicates 3 a.m. on 4th day ?

- (A) 4 am (B) 5 am (C) 3 am (D) 4 pm

36. Jaya's position from the left in a row of students is 12th and Rekha's position is 20th from the right . Both of them interchange their positions and Jaya becomes 22nd from the left. How many students are there in the row ?

- (A) 30 (B) 31 (C) 41 (D) 34

Directions (37 to 38) : In the given question below, find out the correct answer from the given alternatives.



37. Tennis fans, Cricket players, Students

38. Rhombus, Quadrilaterals, Polygons

Space For Rough Work

Directions (39 to 40) : In the given question, arrange the given words in a meaningful sequence and then choose the most appropriate sequence from amongst the alternatives provided below question.

39. 1. Income 2. Status 3. Education 4. Well-being 5. Job
 (A) 1, 3, 2, 5, 4 (B) 1, 2, 5, 3, 4 (C) 3, 1, 5, 2, 4 (D) 3, 5, 1, 2, 4
40. 1. Birth 2. Death 3. Funeral 4. Marriage 5. Education
 (A) 4, 5, 3, 1, 2 (B) 2, 3, 4, 5, 1 (C) 1, 5, 4, 2, 3 (D) 1, 3, 4, 5, 2

Directions (41 to 42) : Refer to the following addition. Each letter represent distinct single digit number and no two letter represents the same digit.

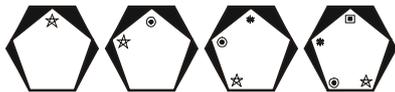
If E is the largest single digit prime number and $B = 2H$ then

$$\begin{array}{r} A B C D E \\ + F H G H G \\ \hline F I I I H F \end{array}$$

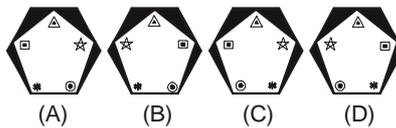
41. Find the value of $A + H + F$
 (A) 11 (B) 12 (C) 9 (D) 13
42. Find the value of $C + D - E$
 (A) 7 (B) 6 (C) 5 (D) 3

Directions : (43 to 45) In the following questions, some figures are given in a sequence. Find out the figure from the alternatives, which will come in place of the question mark to continue the sequence.

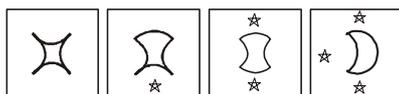
43. **Problem figures**



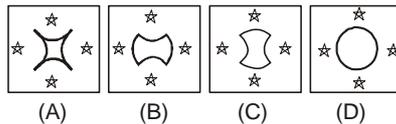
Answer figures



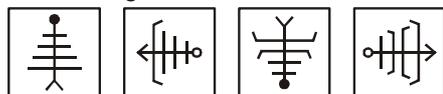
44. **Problem figures**



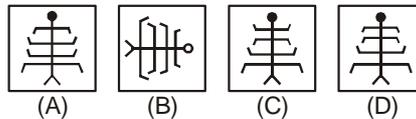
Answer figures



45. **Problem Figure**

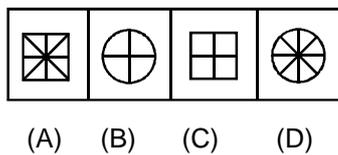
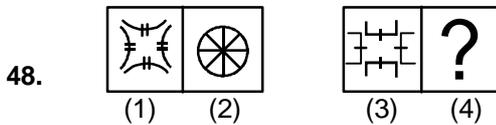
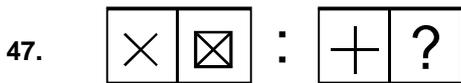
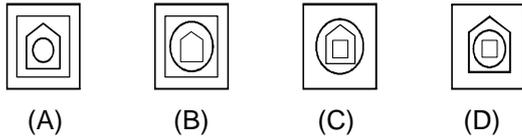
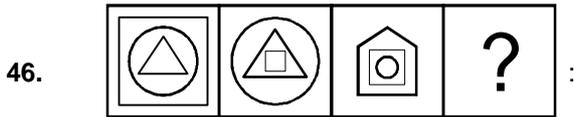


Answer figure

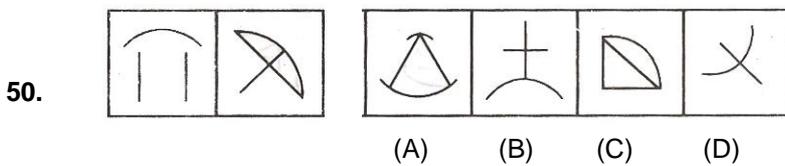
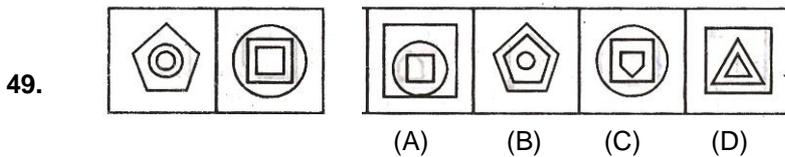


Space For Rough Work

Directions : (46 to 48) Answer the questions on the basis of the information given below. In each of the following questions, there are two pairs of figures. In the first pair, one figure is related to the other in a certain manner. If the same relation has to exist in the second pair, which answer choice should come in place of “?”



Directions (49 to 50) : In the given question there are two problem figures followed by the Answer figures which have been labelled as A, B, C, D. The two problem Figures have some common characteristics/features. Select the answer figure which has the same commonality.



Space For Rough Work

NTSE STAGE-2
PRACTISE TEST PAPER
CLASS -X

LANGUAGE COMPREHENSIVE TEST (LCT)

Time : 45 Min.

Max. Marks : 50

GENERAL INSTRUCTIONS

1. The booklet given in the examination hall is the Question Paper.
2. A student has to write his/her answers in the OMR sheet by darkening the appropriate bubble with the help of HB Pencil as the correct answer(s) of the question attempted.
3. **The question paper contains 50 questions, each carries one mark.**
4. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
5. Write your **Name & Roll No.** in the space provided in the bottom of this booklet.
6. **There is 1/3 negative marking for each wrong answer. So attempt each question carefully.**
7. Before answering the paper, fill up the required details in the blank space provided in the answer sheet.
8. In case of any dispute, the answer sheet available with the institute shall be final.

Student Name _____ **Roll No.** _____

Direction (1 to 5) : Read the each sentence to find out whether there is any grammatical error in it. The error, if any will be in one part of the sentence. The letter of that part is the answer. If there is no error, the answer is 'D'. (Ignore the errors of punctuation, if any).

1. (A) If a man diligently seeks to come across the contact
(B) with the best that has been thought and said in this world
(C) he will become simple and unselfish.
(D) No error.
2. (A) You must (B) remember me
(C) to post this letter. (D) No error.
3. (A) I shall certainly (B) write to you
(C) when I shall reach New Delhi. (D) No error.
4. (A) On the busy Ring Road (B) we witnessed a collusion
(C) between a truck and an auto. (D) No error.
5. (A) Mr.Praful Patel (B) is not attending his office
(C) for the last one month. (D) No error.

Direction (6 to 10) : Read the following passage carefully and answer the questions that follow :

Nehru's was a many sided personality. He enjoyed reading and writing books as much as he enjoyed fighting political and social evils or resisting tyranny. In him, the scientist and the humanist were held in perfect balance. While he kept looking at special problems from a scientific standpoint. He never forgot that we should nourish the total man. As a scientist, he refused to believe in a benevolent power interested in men's affairs. But, as a self proclaimed non-believer, he loved affirming his faith in life and the beauty of nature. Children he adored. Unlike Wordsworth, he did not see him trailing clouds of glory from the recent sojourn in heaven. He saw them as a blossoms of promise and renewal, the only hope for mankind.

6. Nehru thought that children
(A) were trailing clouds of glory
(B) held promise for a better future
(C) were like flowers to be loved and admired
(D) held no hope for mankind
7. Nehru enjoyed
(A) reading and writing books (B) fighting political and social evils
(C) resisting tyranny (D) doing all the above and much more
8. Which of the statements reflects Nehru's point of view?
(A) Humanism is more important than science
(B) Science is supreme and humanism is subordinate to it
(C) Science and Humanism are equally important
(D) There is no ground between science and humanism
9. In this passage, 'a benevolent power interested in men's affairs' means
(A) a supernatural power of God (B) beauty of nature
(C) the spirit of science (D) the total man

10. A 'many-sided personality' means
(A) a complex personality (B) a secretive person
(C) a person having varied interests (D) a capable person

Direction (11 to 15) : Read the following passage carefully and answer the questions that follow :

Corduroy is fast establishing itself at this year's fabric, while the ribbed cotton itself provides utilitarian tenacity, texture and warmth. It is the fabric's long held associations may provide a hint to its current revival as a fabric for all seasons.

It is Corduroy's link with the good breeding and country living that made it an essential ingredient in the gentleman's wardrobe along with Wellington boots and decent wooly. It combines the comfortable non-sense appeal of cotton with the perfectly correct luxury finish of velvet. Corduroy has the ability to appear either supremely sophisticated or rough and ready.

11. Which one of the following best describes the passage?
(A) It tell us about the usefulness of corduroy
(B) It talks us about the virtues of corduroy
(C) It persuades us to buy corduroy
(D) It makes as understand the everlasting appeal of corduroy to the young
12. According to the author, the special quality of corduroy is that
(A) it needs no ironing
(B) it combines the virtues of both cotton and velvet
(C) it contains the correct mixture of cotton and velvet
(D) both the rich and that not-so rich can afford to buy it
13. Corduroy is a fabric for all seasons because
(A) it can be worn not only in winter but also in summer
(B) of its peculiar texture and warmth
(C) it is made popular by catchy advertisements
(D) gentleman can wear it in both formal and informal occasions
14. According to the passage, corduroy is essential in a gentleman wardrobe because
(A) it goes with Wellington boots
(B) its current revival gives a taste of the latest fashion
(C) it has its associations with good upbringing and a conservative lifestyle
(D) it can be an idea alternative to the woollen clothes
15. When the writer refers to corduroy's 'utilitarian tenacity' he means that
(A) though expensive, it is economic in the long run
(B) it is useful because it is durable
(C) it has remained fashionable over several years
(D) it does not need frequent washing

Direction (16 to 25) : In each of the following sentences, a part of the sentence is left unfinished. Below each sentence, four/five different words to complete the sentence are given. Choose the best alternative among them.

16. Although scientists are _____, they do believe in some _____ that is running the universe.
(A) theists - power (B) atheists - power (C) rational - might (D) sagacious - power

17. Johnson was such an outstanding orator, that his contemporaries were too dazzled by his _____ to question his fundamental philosophy.
 (A) persona (B) speciality (C) enthusiasm (D) thinking
18. Moths are nocturnal pollinators, visiting scented flower during the hours of darkness, whereas the butterflies are _____, attracted to bright flowers in the daytime.
 (A) diurnal (B) quotidian (C) colorful (D) ephemeral
19. The professor became increasingly _____ in later years, flying into a rage whenever he was opposed
 (A) irascible (B) voluble (C) subdued (D) contrite
20. Although the deep sea has a typically _____ fauna, near vents in the sea bed where warm water emerges live remarkable densities of invertebrates and fish.
 (A) antique (B) unique (C) lush (D) sparse
21. The journey may be made by sea or _____ by road.
 (A) alternately (B) alteringly (C) conversely (D) alternatively
22. He has not yet attained the age of 21. He has, therefore, no _____ to vote in this election.
 (A) power (B) claim (C) right (D) authority
23. The President today _____ the committee with the induction of the five new general secretaries in place of those dropped.
 (A) reconstituted (B) reviewed (C) formed (D) enlarged
24. Though the programme was originally scheduled for seven days, due to monsoon, it was later _____ to four days.
 (A) curtailed (B) decided (C) ended (D) disrupted
25. The police have a _____ complaint against four persons and have arrested two of them.
 (A) lodged (B) received (C) entered (D) registered

Direction (26 to 35) : In the following passage there are some numbered blanks. Fill in the blanks by selecting the most appropriate word for each blank from the given options.

The last decade has been ...(26)... for management education and development. When the economies of most western countries were ...(27)... in early 1980s there were ...(28)... cuts in both in corporate training and in higher education. During the boom years of mid 1980s there was some ...(29)... in both areas. In early 1990s industrialised countries were in the ...(30)... of another service recession and a ...(31)... retrenchment was to be reasonably ...(32)... throughout the training world. But this is not the case so far. Many leading companies are ...(33)... their belief in training as the key to future competitiveness and governments have ...(34)... an era of rapid ...(35)...

26. (A) dogmatic (B) paradoxical (C) outstanding (D) sluggish
27. (A) galvanised (B) privatised (C) dominant (D) faltering
28. (A) severe (B) judicious (C) marginal (D) proportionate
29. (A) laziness (B) curiosity (C) downsizing (D) reactivity

30. (A) area (B) mood (C) grip (D) light
31. (A) critical (B) light (C) profound (D) possible
32. (A) fabricated (B) projected (C) lamented (D) expected
33. (A) managing (B) asserting (C) criticising (D) rejecting
34. (A) encouraged (B) established (C) preached (D) circulated
35. (A) degradation (B) communication (C) expansion (D) projection

Direction (36 to 37) : In questions below, each passage consist of six sentences. The first and sixth sentence are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled as P, Q, R and S. Find out the proper order for the four sentences.

36. S₁: The Hound of Baskervilles was feared by the people of the area.
 P : Some people spoke of seeing a huge, shadowy form a Hound at midnight on the moor.
 Q : But they spoke of it in tones of horror.
 R : Nobody had actually seen the hound.
 S : This shadowy form did not reveal any details about the animal.
 S₆: The Hound of Baskervilles remains an unsolved mystery.
 The Proper sequence should be:
 (A) SPQR (B) SPRQ (C) PSRQ (D) PQRS

37. S₁: A gentleman who lived alone always had two plates placed on the table at dinner time.
 P : One day just as he sat down to dine, the cat rushed in to the room.
 Q : One plate was for himself and other was for his cat.
 R : she drooped a mouse into her own plate and another into her master plate.
 S : He used to give the cat a piece of meat from his own plate.
 S₆: In this way the cat showed her gratitude to her master.
 The Proper sequence should be:
 (A) QSPR (B) PSRQ (C) QRSP (D) RPQS

Direction (38 to 40) : In each question below, there is a sentence of which some parts have been jumbled up. Rearrange these parts which are labelled P, Q, R and S to produce the correct sentence. Choose the proper sequence.

38. In the darkness
 P : the long, narrow beard
 Q : was clearly visible with
 R : the tall stooping figure of the doctor
 S : and the aquiline nose
 The Proper sequence should be:
 (A) RQPS (B) PSQR (C) RSQP (D) QPRS

39. He told us that
 P : and enjoyed it immensely
 Q : in a prose translation
 R : he had read Milton
 S : which he had borrowed from his teacher
 The Proper sequence should be:
 (A) RSQP (B) QRPS (C) RQSP (D) RQPS

40. When it began to rain suddenly on the first of January
 P : to celebrate the new year
 Q : we ran for shelter
 R : to the neighbouring house
 S : where many people had gathered
 The Proper sequence should be:
 (A) QRPS (B) PSQR (C) PRSQ (D) QRSP

Direction (41 to 45) : In the following questions four alternatives are given for the idiom/phrase italicised and underlined in the sentence. Choose the alternative which best expresses the meaning of idiom/phrase.

41. He was undecided. He let the grass grow under his feet.
 (A) wasted time (B) stayed out (C) sat unmoving (D) moved away
42. Although he has failed in the written examination, he is using backstairs influence to get the job.
 (A) political influence (B) backing influence
 (C) deserving and proper influence (D) secret and unfair influence
43. Companies producing goods pay to the gallery to boost their sales.
 (A) advertise (B) cater to the public taste
 (C) attempt to appeal to popular taste (D) depend upon the public for approval
44. Since he knew what would happen, he should be left to stew in his own juice.
 (A) make a stew (B) boil
 (C) suffer in his own juice (D) suffer for his own act
45. The project did not appear to hold out bright prospects.
 (A) highlight (B) show (C) offer (D) promise

Direction (46 to 48) : In the following questions choose the word which is the exact OPPOSITE of the given words.

46. BUSY
 (A) Occupied (B) Engrossed (C) Relaxed (D) Engaged
47. FRESH
 (A) Faulty (B) Sluggish (C) Disgraceful (D) Stale
48. CULPABLE
 (A) Defendable (B) Blameless (C) Careless (D) Irresponsible

Direction (49 to 50) : In the following the questions choose the word which best expresses the meaning of the given word

49. FAKE
 (A) Original (B) Imitation (C) Trustworthy (D) Loyal
50. INDICT
 (A) Condemn (B) Reprimand (C) Accuse (D) Allege

PRACTICE TEST PAPER

NTSE STAGE-2

CLASS-X [SAT]

HINTS & SOLUTIONS

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	B	A	B	D	A	D	C	B	B	D	B	C	A	C	A
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	A	C	B	A	C	B	C	A	C	A	A	B	B	A	C
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	A	A	C	B	C	D	C	A	D	D	D	C	B	D	C
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	C	B	C	A	D	B	D	A	D	C	D	B	D	A	A
Ques.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans.	C	C	A	A	D	D	B	A	A	C	A	B	C	B	A
Ques.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
Ans.	D	B	D	D	D	C	C	B	D	B	D	D	B	D	D
Ques.	91	92	93	94	95	96	97	98	99	100					
Ans.	A	B	C	D	A	D	D	A	A	D					

1. Distance of person from nearer cliff, $d_1 = \frac{vt}{2}$

$$\therefore d_1 = \frac{330 \times 3}{2} = 495 \text{ m}$$

- Distance of person from farther cliff, $d_2 = \frac{vt}{2}$

$$d_2 = \frac{330 \times 5}{2} = 825 \text{ m}$$

Distance between the two cliffs = $d_1 + d_2 = 495 + 825 = 1320 \text{ m}$

5. Acceleration due to gravity does not depend on the mass of the body, as $g = \frac{GM}{R^2}$

6. When the heaters are connected in series then the equivalent resistance would be $2R$.

$$\text{Power, } P_1 = \frac{V^2}{2R}$$

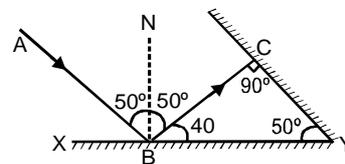
When the heaters are connected in parallel then the equivalent resistance would be $R/2$

$$\text{Power, } P_2 = \frac{V^2}{R/2} = \frac{2V^2}{R}$$

$$\Rightarrow \text{Power, } P_2 = \frac{V^2}{R/2} = \frac{2V^2}{R}$$

$$\Rightarrow \frac{P_1}{P_2} = \frac{V^2}{2R} \times \frac{R}{2V^2} = \frac{1}{4}$$

$$\Rightarrow P_1 : P_2 = 1 : 4$$



Ray BC retraces its path when A falls on second mirror perpendicularly, so as per figure $\angle BYC$ will be equal to 50° .

15. $V = -\frac{mv}{M}$

$$= -\frac{0.01 \times 250}{5} = -0.5 \text{ m/s}$$

16. As sulphur is soluble in CS_2 solution the mixture of sulphur and sand can be separated by dissolving in carbon disulphide solution. Sand will remain undissolved and can be separated by filtration.

18. 60 g NH_2CONH_2 has 28 g N
 \therefore 100 g urea has N = $\frac{28 \times 100}{60}$

19. Lead nitrate on heating produces brown colour fumes due to formation of nitrogen dioxide. The reaction involved



21. When the salt of strong acid and weak base is hydrolyzed, the resulting solution contains H^+ ions. Hence, the solution of such a salt is acidic in character.

24. $t_{1/2} = 35$ yr; $N_0 = 4 \times 10^6$; $N = 0.5 \times 10^6$
 $\therefore t = \frac{2.303 \times 35}{0.693} \log \frac{4 \times 10^6}{0.5 \times 10^6}$

41. $(1024)^{1024} = [(16)^{16}]^n = [(2^4)^{2^4}]^n$
 $(2^{10})^{2^{10}} = [(2)^{4 \times 2^4}]^n$
 $(2)^{2^{10} \times 10} = 2^{16 \times 4 \times n}$
 $2^{10} \times 10 = 16 \times 4 \times n$
 $10240 = 64n$
 $\therefore n = 160.$

42. $512^3 - (253^3 + 259^3)$
 $= 512^3 - [(512)(253^2 + 259^2 - 253 \cdot 259)]$
 $= 512(512^2 - ((512)^2 - 3(253)(259)))$
 $= 512(3 \cdot 253 \cdot 259)$
 $= 2^9 \cdot 3 \cdot 253 \cdot 7 \cdot 37$
 $= 2^9 \cdot 3 \cdot (11) \cdot (23) \cdot 7 \cdot 37$
 So, number of distinct prime divisors are 6.

43. Let the number of people be x. Then each person gets $\frac{180}{x}$
 $\frac{180}{x} = \frac{180}{x-40} - 6 \Rightarrow x^2 - 40x - 1200 = 0$
 $\Rightarrow x = 60$
 \therefore Each person gets = $\frac{180}{60} = \text{Rs. } 3.$

44. Let the common roots be α and other roots be β and γ .
 So, The sum of the product of all four roots, taken two at a time is

Now the roots are α, α, β and γ
 $2(\alpha\beta + \alpha\gamma) + \beta\gamma + \alpha^2 = 192$
 $2\alpha(\beta + \gamma) + \beta\gamma + \alpha^2 = 192 \dots(i)$
 Also, β and γ are roots of equations
 $x^2 - 15x + 56 = 0,$
 $\beta + \gamma = 15, \beta\gamma = 56.$
 Putting these values in equation (i)
 $\alpha^2 + 30\alpha - 136 = 0$
 $\therefore \alpha = \frac{-30 \pm \sqrt{900 + 4 \times 136}}{2}.$

As α is positive $\Rightarrow \alpha = 4.$
 The sum of all four = $4 + 4 + 15 = 23.$

45. We know $AM \geq GM$

$\frac{a+b}{2} \geq \sqrt{ab}$
 $a+b \geq 2\sqrt{ab}$
 Squaring both sides
 $a^2 + b^2 + 2ab \geq 4ab$
 $a^2 + b^2 \geq 2ab \dots\dots\dots (i)$
 So, $b^2 + c^2 \geq 2bc \dots\dots\dots (ii)$
 $c^2 + a^2 \geq 2ac \dots\dots\dots (iii)$
 By adding (i), (ii), (iii)
 $2(a^2 + b^2 + c^2) \geq 2(ab + bc + ca)$
 $2(1) \geq 2(ab + bc + ca)$
 $1 \geq P \dots\dots\dots (iv)$
 And $(a+b+c)^2 \geq 0$
 $a^2 + b^2 + c^2 + 2(ab + bc + ca) \geq 0$
 $1 + 2P \geq 0$
 $P \geq -\frac{1}{2} \dots\dots\dots [From (iv) \& (v)]$
 $-\frac{1}{2} \leq P \leq 1$

46. Using the property,
 $a_1 a_{11} = a_2 a_{10} = a_3 a_9 = \dots\dots\dots = a_6^2 = 25$
 Hence, product of terms = 5^{11}

47. $\sin x + \sin^2 x = 1$
 $\sin x = 1 - \sin^2 x$
 $\sin x = \cos^2 x$
 $\cos^{12} x + 3 \cos^{10} x + 3 \cos^8 x + \cos^6 x - 1$
 $= (\cos^2 x)^6 + 3 (\cos^2 x)^4 \cos^2 x + 3 \cos^4 x (\cos^2 x)^2 + \cos^6 x - 1$
 $= \sin^6 x + 3 \sin^4 x \cos^2 x + 3 \cos^4 x \sin^2 x + \cos^6 x - 1$
 $= (\sin^2 x + \cos^2 x)^3 - 1 = 1 - 1 = 0.$

48. A (6, 3), B (-3, 5), C (4, -2) and D (x, 3x).

$$\text{Area of } \triangle DBC = \frac{1}{2} |x(5+2) + (-3)(-2-3x)$$

$$+ 4(3x-5)| = \frac{1}{2} |7x+6+9x+12x-20| = \frac{1}{2} |28x-14|$$

$$\text{Area of } \triangle ABC = \frac{1}{2} |6(5+2) + (-3)(-2-3) + 4$$

$$(3-5)| = \frac{1}{2} |42+15-8| = \frac{1}{2} |49|$$

$$\text{Given: } \frac{\text{Area of } \triangle DBC}{\text{Area of } \triangle ABC} = \frac{1}{2}$$

$$\Rightarrow \frac{\frac{1}{2} |28x-14|}{\frac{1}{2} \times 49} = \frac{1}{2}$$

$$\Rightarrow |28x-14| = \frac{49}{2}$$

$$\Rightarrow 28x-14 = \pm \frac{49}{2}$$

Taking positive sign

$$\Rightarrow 28x-14 = \frac{49}{2}$$

$$\Rightarrow 56x-28 = 49$$

$$\Rightarrow 56x = 77$$

$$\Rightarrow x = \frac{77}{56} = \frac{11}{8}$$

Taking negative sign

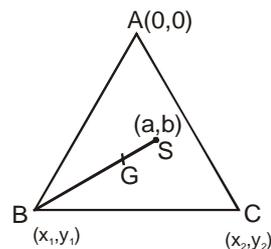
$$\Rightarrow 28x-14 = -\frac{49}{2}$$

$$\Rightarrow 56x-28 = -49$$

$$\Rightarrow 56x = -21$$

$$\Rightarrow x = \frac{-21}{56} = \frac{-3}{8}$$

$$\text{So, } x = \frac{11}{8} \text{ or } x = \frac{-3}{8}$$



49.

$$\text{Centroid of } \triangle ABC \text{ is } G \left(\frac{x_1+x_2}{3}, \frac{y_1+y_2}{3} \right)$$

Now, G divides BS in the ratio 2 : 1

$$\therefore \frac{x_1+x_2}{3} = \frac{2a+x_1}{3} \Rightarrow x_2 = 2a$$

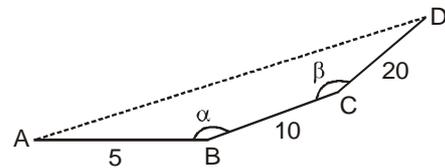
$$\text{And } \frac{y_1+y_2}{3} = \frac{2b+y_1}{3} \Rightarrow y_2 = 2b$$

So, co-ordinates of C are (2a, 2b).

50.

To find possible interval value of 4th side, minimum possible minimum value of 4th side is greater than 0 is 1.

For maximum possible value.



let angle α, β are slightly smaller than 180°

if $\alpha, \beta = 180^\circ$

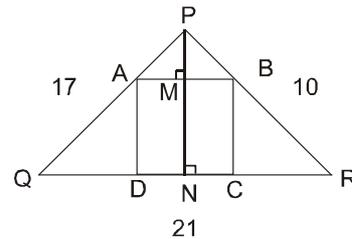
AD = 35

So, the maximum value of 4th side is 34.

\therefore 1, 2, 3,....., 34 are possible value of 4th side

\therefore 34 values are possible.

51.



$$\text{Semi-perimeter of } \triangle PQR = \frac{10+17+21}{2} = 24$$

$$\therefore \text{ar(PQR)} = \sqrt{s(s-a)(s-b)(s-c)} =$$

$$\sqrt{24(14)(3)(7)} = \sqrt{16 \times 21 \times 21} = 84 \text{ sq. units}$$

$$\text{But Area of } \triangle(PQR) = \frac{1}{2} \times \text{base} \times \text{height}$$

$$\therefore 84 = \frac{1}{2} \times QR \times PN$$

$$84 = \frac{1}{2} \times 21 \times h$$

$$h = \frac{84 \times 2}{21} = 8 \text{ cm}$$

Let side of square ABCD be x.

Now, AB || QR

\therefore PN \perp QR \Rightarrow PN \perp AB

$\triangle PQR \sim \triangle PAB$ [By AA criteria]

$$\therefore \frac{AB}{QR} = \frac{PM}{PN} \Rightarrow \frac{x}{21} = \frac{8-x}{8}$$

$$\Rightarrow 8x = 168 - 21x$$

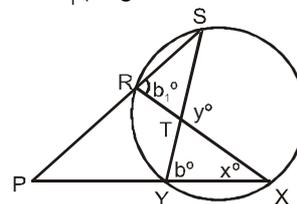
$$\Rightarrow 29x = 168$$

$$\Rightarrow x \approx 5.8 \text{ cm}$$

$$\therefore \text{Perimeter of ABCD} = 5.8 \times 4 = 23.2 \text{ cm.}$$

52.

$b = b_1$ (angles in same segment)

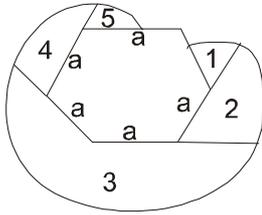


$b = y - x$ (exterior angles of \triangle)

$b_1 = \angle P + x$ (exterior angle of $\triangle PRX$)

$$\Rightarrow y - x = \angle p + x ; \angle p = (y - 2x)^\circ$$

53.



$$A_1 = A_5 = \frac{60}{360} \pi \left(\frac{a}{2}\right)^2 = \frac{\pi a^2}{24},$$

$$A_2 = A_4 = \frac{60}{360} \pi \left(\frac{3a}{2}\right)^2 = \frac{3a^2 \pi}{8}$$

$$A_3 = \frac{240}{360} \pi \left(\frac{5a}{2}\right)^2 = \frac{25a^2 \pi}{6}$$

$$\text{Area that can be grazed} = 2 \left(\frac{\pi a^2}{24} \right) +$$

$$2 \left(\frac{3a^2 \pi}{8} \right) + \frac{25a^2 \pi}{6} = 5\pi a^2.$$

54. The circumference of the front wheel is 30 ft and that of the rear wheel is 36 feet.

Let the rear wheel make n revolutions. At this time, the front wheel should have made $n + 5$ revolutions.

As both the wheels have covered the same distance, $n \times 36 = (n + 5) \times 30$

$$36n = 30n + 150$$

$$6n = 150$$

$$n = 25$$

$$\text{Distance covered} = 25 \times 36 = 900 \text{ ft.}$$

55. Vertices of triangle are $A(a, b)$, $B(b, c)$ and $C(c, a)$. Given that centroid is at origin.

$$\text{So, } \frac{a+b+c}{3} = 0 \Rightarrow a+b+c=0$$

$$a^3 + b^3 + c^3 - 3abc = (a+b+c)(a^2 + b^2 + c^2 - ab - bc - ca)$$

$$\Rightarrow a^3 + b^3 + c^3 - 3abc = 0 \quad (\because a+b+c=0)$$

$$\Rightarrow a^3 + b^3 + c^3 = 3abc.$$

56. Smallest 3-digit prime number is 101.

Clearly, $2525 = 25 \times 101$; $3232 = 32 \times 101$, etc

\therefore Each such number is divisible by 101.

57. Favourable Cases of $|x| < 2 = \{-1, 0, 1\}$

$$P(|x| < 2) = \frac{3}{7}.$$

58. $3^{x+y} = 81$

$$\text{or, } 3^{x+y} = 3^4$$

$$\text{or, } x + y = 4 \quad \dots(i)$$

$$\text{or, } 3^{4(x-y)} = 3^1$$

$$\text{or, } 4(x-y) = 1$$

$$\text{or, } 4x - 4y = 1 \quad \dots(ii)$$

Solving (i) & (ii)

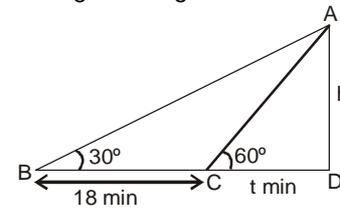
$$4x + 4y = 16$$

$$4x - 4y = 1$$

$$\text{Adding, } 8x = 17$$

$$x = \frac{17}{8}, y = \frac{15}{8}.$$

59.



Let the speed of the scooter = v m/min.

\therefore Distance $BC = 18v$ and Distance $CD = tv$.

In $\triangle ACD$

$$\tan 60^\circ = \frac{AD}{CD}$$

$$\sqrt{3} = \frac{h}{tv}$$

$$h = \sqrt{3} tv \quad \dots (i)$$

$$\tan 30^\circ = \frac{AD}{BC+CD}$$

$$\frac{1}{\sqrt{3}} = \frac{AD}{BC+CD}$$

$$\frac{1}{\sqrt{3}} = \frac{h}{18v+tv}$$

$$h = \frac{v(18+t)}{\sqrt{3}} \quad \dots (ii)$$

From (i) & (ii)

$$\sqrt{3} tv = \frac{v(18+t)}{\sqrt{3}}$$

$$3t = 18 + t$$

$$\therefore t = 9 \text{ min.}$$

60. In $\triangle ABC$
 $DE \parallel BC$
so by BPT

$$\frac{AD}{BD} = \frac{AE}{CE}$$

$$\frac{3x-2}{7x-5} = \frac{5x-4}{5x-3}$$

$$(3x-2)(5x-3) = (5x-4)(7x-5)$$

$$15x^2 - 9x - 10x + 6 = 35x^2 - 25x - 28x + 20$$

$$20x^2 - 34x + 14 = 0$$

$$10x^2 - 17x + 7 = 0$$

$$10x^2 - 10x - 7x + 7 = 0$$

$$10x(x-1) - 7(x-1) = 0$$

$$(10x-7)(x-1) = 0$$

$$x = \frac{7}{10} \text{ or } 1$$

By put $x = \frac{7}{10}$ we get $AE = 5x - 4 = -0.5$

which is not possible so $x = 1$.

PRACTICE TEST PAPER

NTSE STAGE-2

CLASS-X [MAT]

HINTS & SOLUTIONS

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	B	C	A	B	A	B	A	D	B	D	C	A	A	D	D
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	C	C	D	C	C	C	A	D	C	B	A	A	C	C	D
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	C	D	D	D	A	C	D	A	D	C	B	A	A	D	C
Ques.	46	47	48	49	50										
Ans.	B	D	C	D	B										

1. $325, 259, 204, 160, 127, 105, 94 \Rightarrow$ Ans. B
 $\underbrace{325}_{66} \quad \underbrace{259}_{55} \quad \underbrace{204}_{44} \quad \underbrace{160}_{33} \quad \underbrace{127}_{22} \quad \underbrace{105}_{11} \quad \underbrace{94}_{11}$

2. $16, 17, 21, 30, 46, 71, 107 \Rightarrow$ Ans. C
 $\underbrace{16}_{1^2} \quad \underbrace{17}_{2^2} \quad \underbrace{21}_{3^2} \quad \underbrace{30}_{4^2} \quad \underbrace{46}_{5^2} \quad \underbrace{71}_{6^2} \quad \underbrace{107}_{6^2}$

3. The series will be –
 $\underbrace{18}_6 \quad \underbrace{24}_{11} \quad \underbrace{35}_{16} \quad \underbrace{51}_{21} \quad \underbrace{72}_{26} \quad \underbrace{98}_{26}$

So $A = 35 \Rightarrow A \times \frac{3}{7} \times \frac{4}{5} = 12$

4. $\underbrace{42}_{20} \quad \underbrace{62}_{30} \quad \underbrace{92}_{40} \quad \underbrace{132}_{50} \quad \underbrace{182}_{60} \quad \underbrace{242}_{70} \quad \underbrace{312}_{70}$

$\Rightarrow A = 182$

$\Rightarrow A + 14 = ? \times 14 \Rightarrow$ Ans B

5. In first Row

42	44	38
----	----	----

$\Rightarrow 42 - 38 = 4 \times 11 = 44$

So $37 \quad \times \quad 39$

$39 - 37 = 2 \times 11 = 22$ (A)

6. In first Row $\underbrace{51}_{5 \times 1 = 5} \quad \underbrace{11}_{11} \quad \underbrace{61}_{6 \times 6 \times 1}$

So $3 \times 5 + 4 \times 3$

$15 + 12 = 27$ Ans (B)

7. $\begin{array}{c} 9 \\ \circlearrowleft \\ 103 \\ \circlearrowright \\ 14 \end{array} \Rightarrow (14 \times 9) - (14 + 9) = 103$

So $\begin{array}{c} 8 \\ \circlearrowleft \\ ? \\ \circlearrowright \\ 10 \end{array} \Rightarrow (10 \times 8) - (10 + 8) = 80 -$

$18 = 62$ Ans (A)

35. Since clock loses 20 min. in 24 hrs. and we need true time after 71 hrs. [3 am on 4th day]

Now

$\therefore 23\frac{2}{3}$ hrs of defected clock = 24 hrs right

clock

$\therefore 1$ hr of defected clock = $\frac{24 \times 3}{71}$

$\therefore 71$ hrs of defected clock = $\frac{24 \times 3 \times 71}{71} =$

72 hrs of right clock

So correct time will be 4 am.

ANSWER KEY [LCT]

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	A	B	C	B	B	B	D	C	A	C	B	D	A	C	B
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	B	C	A	D	D	D	C	A	A	D	C	D	C	D	C
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	B	D	B	B	C	C	A	A	C	D	A	D	C	D	C
Ques.	46	47	48	49	50										
Ans.	C	D	B	B	C										

Students' Testimonials (NTSE)



MANTHAN GUPTA
Roll No. : 12419704

I joined Resonance in 8th Class. It has been a great experience at Resonance since four years. I have prepared for various exams at Resonance including NTSE in which I passed with flying colors due to the aid provided by teachers & Study material at Pre-foundation Division.

I liked the teaching methodology which is quit opt for the preparation of the various exams. The teachers were quiet helpful & guided the students at each & every step. I am quite satisfied with the faculty staff & Hope to succeed as well in IIT for which I am preparing at YCCP.



PRIYANSHU SINGH
Roll No. : 13400550

I joined Resonance in class 9th, & have been preparing for NTSE since then. There is a lot of competition around & I got a lot of motivation.

The teachers help the student a lot & they guide as well to study in the right direction still I was satisfied & I am happy to be an NTSE Scholar. For me resonance is best for preparation of exams



ABHINAV SINGH
Roll No. : 11400652

First of all I want to extend my thanks to all Resonance team members. I have been studying in Resonance since class 7th.

Resonance provided me with right platform to test my competitive skills. The atmosphere is very healthy at Resonance. All the faculty members are highly professional once again. Thanks to every team members.



SASHAKT TRIPATHI
Roll No. : 11400859

I joined Resonance in class 7th & since then I have been preparing for NTSE. I was the learning experienced with such learned & experienced faculties. The study material was a real asset & very helpful.

The teachers were always ready to help & supported a lot. The study atmosphere was very competitive being a part of Resonance was really helpful becoming NTSE Scholar.



KUMAR KIRTI JAIN
Roll No. : 11401071

I have been with Resonance for the last for years & it has been a wonderful experienced at PCCP. The study material ha helpful me throughout the first stage, Through I felt a back of study material in 2nd stage.

The faculties have been really helpful in the concern. I had joined Resonance specifically for an espouse in competitive exams & I duly feel that much of that purpose has been fulfilled



SARTHAK SHARMA
Roll No. : 13152816

I am a student of resonance from more then 5 years and during this time I have qualified for NTSE. It is the Resonance who has given me strong foundation and made me so focused towards studies and exams due to that I have qualified in NTSE.

Study material is very good, faculty shows a good direction. Non academic staff is always there to resolve any issues or any help which I needed. I really thankful to resonance and I strongly suggest students that if you want to be successful become part of resonance



GARVIT MEHTA
Roll No. : 12400943

I joined Resonance when I was in 8th Class. Before I joined Resonance I was not very well in studies. But my life changed with resonance and in Class 10th. I got selected in NTSE which I had not expected earlier. The Study Material provided me edge required to crack this national level exam. Teachers and staff are friendly & they always ready to support in every manner

I am very thankful to Resonance and suggest my friends who want to improve and do well in studies to join resonance without any doubt



IJSO (Stage-3)

3

Out of 6
(All India Selections)

KVPY-2015

322

CCP: 139 | DLP/e-LP: 183

NTSE-2015

105

CCP: 66 | DLP/e-LP: 39

JEE (Adv.) 2015

4124

CCP: 2570 | DLP/e-LP: 1554

JEE (Main) 2015

25542

CCP: 18816 | DLP/e-LP: 6726

AIIMS 2015

35

CCP: 20 | DLP/e-LP: 15

AIPMT 2015

447

CCP: 337 | DLP/e-LP: 110

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