

(4) Vidyalankar : NTSE – Level 1

What is the ratio between the numbers of letters and numbers used in the table? If any of these has been used more than once, count it as one only.

- (1) 4 : 3 (2) 5 : 4
(3) 8 : 7 (4) None of these

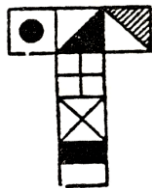
6. If 'A + B' means 'A' is the mother of 'B', 'A - B' means 'A' is brother of 'B', 'A ÷ B' means 'A' is father of 'B', 'A × B' means 'A' is sister of 'B'. Which of the following means 'P' is uncle of 'Q'?

- (1) $Q - N + M \times P$ (2) $P \div S \times N - Q$
(3) $P - M + N \times Q$ (4) $Q - S \div P$

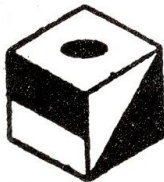
7. Some equations are solved on the basis of certain system. On the same basis find the answer for unsolved equation,

- $a = 11(158) 14,$ $b = 17(225) 13,$ $c = 15(?)12$
(1) 180 (2) 166
(3) 184 (4) 174

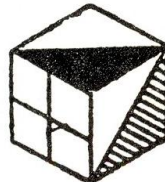
8. In this question, the problem figure is made of six squares. It is then folded to form a cube. Find out the correct alternative from the answer figures.



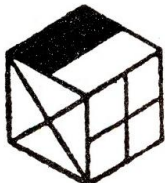
(1)



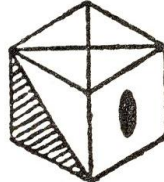
(2)



(3)



(4)



9. In a certain code language

- (i) "764" means "You Reading It"
(ii) "5872" means "Where You Have Gone"
(iii) "196" means "He Likes Reading."

What is the code for 'It' in that code language ?

- (1) 3 (2) 4
(3) 6 (4) 7

10. (i) A 2 B means A is a mother of B.
(ii) A 4 B means A is the brother of B.
(iii) A 5 B means A is the daughter of B.
(iv) A 9 B means A is the husband of B.

SPACE FOR ROUGH WORK

Which of the following expression shows the relation that 'K' is Mother-in-Law of 'M' ?

- (1) M 9 N 2 K 4 I (2) M 9 N 5 K 2 J
 (3) K 5 J 9 M 2 N (4) K 2 J 9 N 4 M

11. A and B started walking in the same direction. After walking some distance 'A' turned to his left but 'B' kept on walking and then turned to his right and now he was facing 'East'. After some time each turned to his right. Which of the following statement is definitely true ?

- (1) A is facing West (2) B is facing North
 (3) A is facing North (4) None of these

12. Which of the following letters when sequentially placed at the gaps in the given blanks shall complete it ?

__c__bd__cbcd__a__db__a.

- (1) bdbcb (2) daabbc
 (3) cdbbca (4) adabcd

Q. 13 and 14 → **Directions :** Find the missing number from the given response :

13.

7	6	7
35	54	28
3	4	5
8	13	?

- (1) 7 (2) 8
 (3) 9 (4) 6

14.

31	17	58	87
68	19	61	56
91	22	70	50
10	142	11	?

- (1) 6 (2) 7
 (3) 3 (4) 9

15. Ashwini's birthday was celebrated on 22nd October 1994 on Saturday. What will be the day on his birthday in the year 1996 ?

- (1) Sunday (2) Monday
 (3) Tuesday (4) Friday

16. Amol is standing facing north. He walks 10 km straight turns left, walks another 10 km turns right, walks 5 km and finally turns left and walk 15 km to reach a park. Which direction is he facing now?

- (1) East (2) West
 (3) North (4) South

SPACE FOR ROUGH WORK

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17. AGLR : BIOV :: DSNP : ?

- (1) EUOQ (2) ETOQ
(3) EUQT (4) EUOT

18. 25 : 23 :: 395 : ?

- (1) 92 (2) 682
(3) 208 (4) 79

19. Find odd one out.

- (1) 18:109 (2) 23:139
(3) 20:119 (4) 26:157

20. 48 : 122 :: 168 : ?

- (1) 215 (2) 226
(3) 290 (4) 292

21. Which number is like the given set of numbers? (2, 13, 61)

- (1) 117 (2) 123
(3) 101 (4) 20

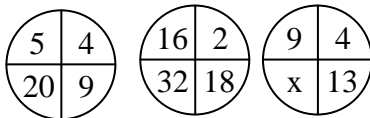
22. In a code language REMOTE is written as ROTEM which world would be coded as PNIICC

- (1) NPIICC (2) PICNCI
(3) PICNIC (4) PICCIN

23. Which is a wrong number in the series 6, 19, 56, 169, 508, 1519

- (1) 169 (2) 1519
(3) 19 (4) 508

24. Find missing no, x



- (1) 52 (2) 117
(3) 36 (4) 81

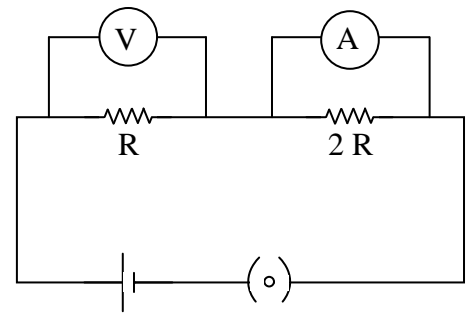
25. Find odd one out

- (1) 372164 (2) 376821
(3) 318951 (4) 319446

SPACE FOR ROUGH WORK

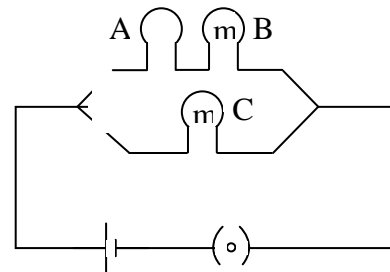
SCHOLASTIC APTITUDE TEST

26. To obtain correct reading of the current flowing in the circuit.
- (1) Remove voltmeter from circuit
 - (2) Interchange ammeter and volt meter
 - (3) Connect ammeter in series with two resistors
 - (4) Connect voltmeter in series with two resistors



27. The resistivity of an electrical conductor depends upon
- (1) Dimensions and material only
 - (2) Temperature of material
 - (3) Temperature and nature of material
 - (4) Dimensions and nature of material
28. In which of the following equipment heating effect of electric current is used Bulb, Toaster, Electric fuse, Door bell
- (1) Bulb, toaster only
 - (2) Bulb, toaster, electric fuse
 - (3) Bulb, electric fuse, door bell
 - (4) In all
29. An electric bulb has a power rating of 40 watts. It is used in 220 volt power supply. What is resistance offered by filament of bulb.
- (1) 2420 Ω
 - (2) 1210 Ω
 - (3) 121 Ω
 - (4) 1580 Ω

30. 3 bulb of 100 watts each are connected in 220 v circuit as shown which bulb will be brightest
- (1) A & B
 - (2) A
 - (3) C
 - (4) can not say



31. Which type of following combination produces a virtual image for all positions of object
- (1) Concave mirror and convex lens
 - (2) Convex mirror and convex lens
 - (3) Convex mirror and concave lens
 - (4) Concave mirror and convex lens
32. Which of the following is not a saturated hydrocarbon?
- (1) cyclohexane
 - (2) benzene
 - (3) butane
 - (4) isobutene
33. The bond between two identical nonmetallic atom has a pair of electron?
- (1) unequally shared between two atoms
 - (2) transferred completely from one atom to another
 - (3) with identical spins
 - (4) equally shared between them

SPACE FOR ROUGH WORK

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34. Covalent compounds are generally –

- (1) Soluble in water (2) insoluble in water
(3) ionize in water (4) hydrolyse in water

35. Which of the following reactions is a displacement reaction?

- (1) $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2$ (2) $\text{NH}_3 + \text{HCl} \rightarrow \text{NH}_4\text{Cl}$
(3) $2\text{KI} + \text{Cl}_2 \rightarrow 2\text{KCl} + \text{I}_2$ (4) $\text{BaCl}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + 2\text{HCl}$

36. Which of the following oxides is acidic in nature?

- (1) NaO (2) MgO
(3) K₂O (4) P₂O₅

37. Scientific names for organisms are mostly in which of the following language?

- (1) German (2) Italian
(3) Roman (4) Latin

38. Which of the following ingredients is NOT present in fermented fodder?

- (1) Grounded cereals (2) Oil cake
(3) Grass (4) Jaggery

39. Choose odd one out on the basis of exoskeleton.

- (1) Snake (2) Bat
(3) Scoliodon (Shark) (4) Wall Lizard

40. In which of the following experiments on photosynthesis KOH is used?

- (1) To demonstrate oxygen is released during photosynthesis.
(2) To demonstrate CO₂ is released during photosynthesis.
(3) To demonstrate CO₂ is essential for photosynthesis.
(4) To demonstrate chlorophyll is essential for photosynthesis.

41. During pathogenic infections, production of antibodies is done by which of the following components of blood?

- (1) Albumin (2) Prothrombin
(3) Carrier proteins (4) Globulin

42. Select the correct pair :

- (1) Scorpion : Green gland (2) Earthworm : Nephridia
(3) Sponges : Flame cells (4) Lobster : coxal glands

43. Which period is known as age of revolution?

- (1) 1700–1800 (2) 1850–1950
(3) 1750–1850 (4) 1650–1750

44. Find odd one out

- (1) Columbus (2) Cabot
(3) Jefferson (4) Vespucci

SPACE FOR ROUGH WORK

45. Who were the original inhabitants of America?
 (1) Spanish (2) Negro
 (3) Jews (4) Red Indians
46. England acquired possession of which land from France at the end of 7 year war with the treaty of paris?
 (1) 13 colonies (2) Ohio
 (3) Canada (4) Boston
47. Which is the chronological order of (a) Sugar act, (b) Stamp act, (c) Tea act, (d) Boston tea Party, (e) Boston massacre
 (1) a, b, c, e, d (2) a, b, c, d, e
 (3) b, c, e, d, a (4) a, c, b, d, e
48. A system having dual set of government is known as
 (1) Federal (2) Unitary
 (3) Constitutional (4) Dual
49. Who is India's ex-officio chairman of Rajyasabha.
 (1) President (2) Vice-President
 (3) Prime minister (4) Chief Justice
50. The Supreme Court consists of chief Justice and _____ other Judges
 (1) 17 (2) 20
 (3) 23 (4) 30
51. Constitutional status to local Government is accorded by which of these Amendments?
 (1) 70, 71 (2) 73, 74
 (3) 34, 47 (4) none
52. Disputes between Tamil Nadu & Karnataka are over the distribution of water from River _____.
 (1) Godavari (2) Cauvery
 (3) Hugli (4) Krishna
53. Which one of the following is not correctly matched?
 (1) Corbett National park –Uttar Pradesh
 (2) Sariska Wildlife Sanctuary - Rajasthan
 (3) Madhav National Park –Madhya Pradesh
 (4) Dachigam National Park--Jammu & Kashmir
54. Which one of the following is not a factor of soil formation?
 (1) Time (2) Soil texture
 (3) Organic matter (4) Slope
55. Latitudinal extent of Maharashtra is _____ North to _____ North.
 (1) $15^{\circ}35'46''$ to $22^{\circ}02'13''$ (2) $15^{\circ}35'46''$ to $22^{\circ}20'13''$
 (3) $15^{\circ}40'46''$ to $25^{\circ}35'46''$ (4) $14^{\circ}35'46''$ to $25^{\circ}35'46''$

SPACE FOR ROUGH WORK

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56. The dams having height above _____ meters are called large dams in India
(1) 15 (2) 10
(3) 20 (4) 12.5
57. *El Nino* ocean current flow in ---- ocean.
(1) South Atlantic (2) South Pacific
(3) North Pacific (4) South Indian
58. Which fundamental Right prohibits discrimination against any citizen on the basis of sex?
(1) Right to freedom (2) Right against Exploitation
(3) Right to Equality (4) None of these
59. _____ has been one of the major constraint to the growth of the GDP.
(1) Illiteracy (2) Corruption
(3) Unemployment (4) Overpopulation
60. Who developed the concept of physical quality of life index ?
(1) Morris David Morris (2) Adam Smith
(3) Ricardo (4) Pigon
61. Which is the greatest number amongst $3^{1/3}$, $2^{1/2}$, $8^{1/8}$, $9^{1/9}$.
(1) $9^{1/9}$ (2) $8^{1/8}$
(3) $3^{1/3}$ (4) $2^{1/2}$
62. If the product of two number is 21 and their difference is 4, then the ratio of the sum of their cubes to the difference of their cubes is
(1) 185 : 165 (2) 165 : 158
(3) 185 : 158 (4) 158 : 145
63. In a quadrilateral ABCD if $AB \parallel CD$, $\angle D = 2 \angle B$, $AD = b$, $CD = a$, then the side AB is of length
(1) $a/2 + 2b$ (2) $a + 2b$
(3) $2a - b$ (4) $a + b$
64. Two candies have different lengths and thickness. The shorter lasts 11 hours and longer lasts 7 hours when both are lit simultaneously. If after 3 hours of their being lit together at the same time, both have the same length then the ratio of their original lengths is
(1) 5 : 8 (2) 11 : 14
(3) 10 : 13 (4) 7 : 11
65. If a cube has surface area S and Volume V, then the Volume of cube of surface area 2 S is
(1) $\sqrt{2} V$ (2) 2 V
(3) $2\sqrt{2} V$ (4) 4 V
66. Units digit in the number $(12357)^{655}$ is
(1) 1 (2) 3
(3) 7 (4) 9

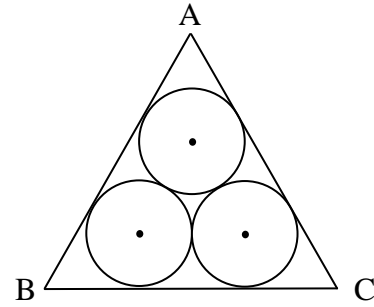
SPACE FOR ROUGH WORK

67. How many pairs of natural numbers are there so that difference of their squares is 60?

- (1) 4 (2) 3
(3) 2 (4) 1

68. ΔABC is an equilateral Δ of side 'a' unit. 3 circles of equal radii 'r' each touch the sides of Δ & each other. Then the relation between a & r is

- (1) $a = 2(\sqrt{3} + 1)r$
(2) $a = 2(\sqrt{3} + 1)r$
(3) $a = (\sqrt{3} + 2)r$
(4) $a = (\sqrt{3} + 2)r$



69. ΔABC is a triangle with $AB = AC$ and $BC = 9$ cm, height from A to BC is 6 cm then height from C to AB is _____ cm.

- (1) 6 (2) 7.2
(3) 7.5 (4) 8

70. The sum of any 3 distinct natural numbers arranged in ascending order is 200 such that the second no. is a perfect cube. How many possible values are there for this number?

- (1) 4 (2) 3
(3) 2 (4) 1

LANGUAGE TEST

Q. 71 – 75 : Read the following passage and answer the questions that follow.

Alice went timidly up to the door, and knocked.

'There's no sort of use in knocking,' said the Footman, 'and that for two reasons. First, because I'm on the same side of the door as you are; secondly, because they're making such a noise inside, no one could possibly hear you.' And certainly there was a most extraordinary noise going on within—a constant howling and sneezing, and every now and then a great crash, as if a dish or kettle had been broken to pieces.

'Please, then,' said Alice, 'how am I to get in?'

'There might be some sense in your knocking,' the Footman went on without attending to her, 'if we had the door between us. For instance, if you were INSIDE, you might knock, and I could let you out, you know.'

He was looking up into the sky all the time he was speaking, and this Alice found decidedly uncivil. 'But perhaps he can't help it,' she said to herself; 'his eyes are so VERY nearly at the top of his head. But at any rate he might answer questions.'

'How am I to get in?' she repeated, aloud.

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'ARE you to get in at all?' said the Footman. 'That's the first question, you know.'

It was, no doubt: only Alice did not like to be told so. 'It's really dreadful,' she muttered to herself, 'the way all the creatures argue. It's enough to drive one crazy!'

71. What did Alice find uncivil?

- (1) That the footman did not answer her question.
- (2) That the footman did not open the door.
- (3) That the footman went on without attending to her.
- (4) That the footman did not look at her while speaking.

72. What according to Alice might be the reason the footman was looking up at the sky all the time?

- (1) He wanted to avoid answering her question
- (2) He liked to look at the sky
- (3) His eyes were almost at the top of his head
- (4) He wanted to avoid her glance as he was shirking her question

73. In the sentence "It was, no doubt" the pronoun 'it' refers to:

- (1) The question (2) Alice (3) The footman (4) Nothing

74. Which of these would best describe the dialogue of the Footman?

- (1) Bizarre and dreadful (2) Weird and funny
(3) Rude and uncivil (4) Quarrelsome and crazy

75. The Footman meant that Alice's knocking did not make sense because:

- (1) She was on the other side of the door
- (2) He was not allowed to let in people on the other side of the door
- (3) She was not supposed to get in at all
- (4) They were both on the same side of the door

Q. 76 – 78 : The following sentences form a paragraph. The 1st and last sentences are given. Arrange the four middle sentences in the right order to form a coherent paragraph.

76. S1 : Baron Pierre de Coubertin, founder of the modern Olympics, designed a symbol for the 20th anniversary of the Games - the five linked rings.

S6: Had it been his inspiration?

- (a) His heart fluttered.
- (b) Had Baron Coubertin — decades before — seen this same etching?
- (c) While excavating a site, Robert Barney, a sports historian, noticed a symbol etched into a weather-beaten stone: five linked rings.
- (d) But where did the baron get his idea for the design?

Choose the answer from the options below:

- (1) acbd (2) cadb (3) dcab (4) cbad

SPACE FOR ROUGH WORK

77. S1 : Thousands of people turned up at the Lal Bahadur Stadium to hear the Chief Minister of Gujarat on Sunday.

S6 : The money will go towards relief in flood-hit Uttarakhand.

- (a) The stadium accommodated a crowd of 70,000 and almost as many assembled on the grounds.
 (b) A token amount of Rs.5 was collected from each participant.
 (c) Those who could not be accommodated in the stadium were advised to gather in the nearby college grounds where big screens were put up.
 (d) The stadium, in the heart of the city, was filled to its capacity two hours before he arrived.

Choose the answer from the options below:

- (1) abcd (2) dcab (3) dacb (4) acdb

78. S1 : Geckos live in most warm climates in North America.

S6 : That would be over twice the size of the largest one I saw.

- (a) The biggest one I have ever seen was about ten inches long.
 (b) They are small lizards that live in nature and also near people.
 (c) However, the book I read on geckos claims they can get to be 60 centimeters long.
 (d) When I say they are small, I really mean they are tiny.

Choose the answer from the options below:

- (1) bcda (2) badc (3) bacd (4) bdac

Q.79 – 83 : Arrange the parts in a logical order to form a meaningful and grammatically correct sentence (prior knowledge of events is not necessary). Ignore errors of punctuation.

79. (a) famous veteran actor Dharmendra

- (b) Abhay Deol
 (c) is the nephew of
 (d) the Indian film actor
 (e) and cousin of actors Sunny Deol and Bobby Deol

- (1) acdeb (2) bcdae (3) bdcae (4) adcbe

80. India's first

- (a) INS Vikrant
 (b) which has a length of 260 metres and breadth of 60 metres
 (c) indigenous aircraft carrier
 (d) and is being built at Cochin Shipyard Limited
 (e) has been designed by Directorate of Naval Design

- (1) aebdc (2) abdec (3) ceabd (4) cabed

81. (a) given the relatively large team size,
 (b) in which the leader had to make a tough decision
 (c) there was almost always a case
 (d) regarding who was better

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- (1) abcd (2) cadb (3) acbd (4) cbad

- 82.** (a) the book 'Adventures of Huckleberry Finn'
(b) by literary critics since its publication.
(c) has also been the continued object of study
(d) perennially popular with readers,

- (1) abdc (2) dabc (3) acdb (4) dacb

- 83.** (a) simply because (b) Federer should win this match
(c) we sincerely feel that (d) he is a better player

- (1) dacb (2) badc (3) abcd (4) cbad

Q.84 – 29 : Choose the word which best fills the blank.

- 84.** The picture on the television is not very clear; probably something needs to be _____

- (1) suited (2) adjusted (3) adapted (4) fitted

- 85.** Since she was in a hurry, we only managed to _____ a few words.

- (1) exchange (2) transmit (3) talk (4) shift

- 86.** The government must take _____ measures to curb population explosion.

- (1) Many (2) arbitrary (3) stringent (4) available

- 87.** Rohit and I passed out from school in 1995. We haven't met _____.

- (1) at all (2) ever since (3) any time (4) from then

- 88.** As a representative of the committee you are supposed to _____ all its members.

- (1) talk about (2) speak for (3) discuss about (4) meet

- 89.** He fares well in the exams because he _____ at home

- (1) hardly studies (2) is hard working (3) studies hard (4) was studying hard

- 90.** I happen to know that she has a brother because _____

- (1) I am meeting him every day (2) I had met him once
(3) she met him once (4) I might meet him



SPACE FOR ROUGH WORK