



# Indian School Talent Search Exam (ISTSE)

## Sample Paper (Paper Based Exam) – Class 8

Total Questions: 50, Total Marks: 100

### Instructions:

1. Duration of the test is 60 minutes.
2. Total marks are 100.
3. Questions paper contains 50 Questions.
4. The question numbers
  - 1 to 9 belong to “Mental and Logical Ability”
  - 10 to 21 belong to Mathematics
  - 22 to 33 belong to Science
  - 34 to 45 belong to English and
  - 46 to 50 are “Scholars Section”
5. Each question carries negative marking.
6. Please leave the question in case you are not sure about answer.
7. Un-attempted questions do not attract negative marking.
8. Answers are to be given on a separate OMR sheet.
9. Rough work can be done anywhere in the booklet but not on the OMR sheet/loose paper.

### Section-1, Mental and Logical Ability

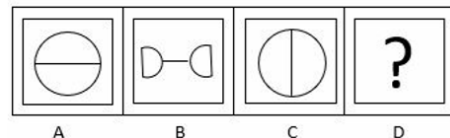
(1 mark for correct answer. 0.25 mark will be deducted for wrong answer)

1. How many 8's are there in the following number series which are exactly divisible by its immediately preceding number and also divisible by immediately succeeding number?

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

- a) 1
- b) 4
- c) 3
- d) 2

2. Which image will come at the place of “?”?



- a)
- b)
- c)
- d)



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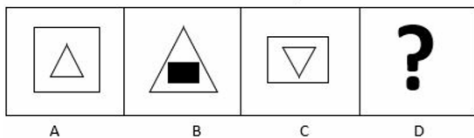
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3. If 'PAINT' is coded as '74128' and 'EXCEL' is coded as '93596', how is 'Except' coded?  
 a) 957958  
 b) 959578  
 c) 935978  
 d) None of these
4. Six friends A, B, C, D, E and F are sitting around the hexagonal table each at one corner and are facing the centre of the hexagonal. A is second to the left of F. B is neighbour of C and D. E is second to the left of D.

Which one is sitting opposite to A?

- a) D  
 b) E  
 c) C  
 d) B

5. Guess the next image



- a)
- b)
- c)
- d)

6. Fill in the blank:

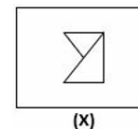
QPO, NML, KJI, \_\_\_\_\_, EDC

- a) GHI  
 b) HGF  
 c) JKL  
 d) CAB

7. If deaf is called blind, blind is called lame, lame is called dumb and dumb is called handicap, then what will you say to a man who is unable to see?

- a) Blind  
 b) Handicap  
 c) Deaf  
 d) Lame

8. A Fig (X) is given, followed by four complex figures in such a way that Fig. (X) is embedded in one of them. Choose that one.



- a)
- b)
- c)
- d)



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9. Pointing to a photograph Sunita said, " She is the only grand-daughter of my mother's mother. How is the girl in the photograph related to Sunita?
- Herself
  - Daughter
  - Sister
  - Aunt

### Section-2, Mathematics

(2 marks for correct answer. 0.50 mark will be deducted for wrong answer)

10. If  $p$  and  $q$  are perfect squares, then  $\sqrt{\frac{p}{q}}$  is always a rational number. Is the statement true?
- False
  - Cannot be determined
  - True
  - None
11. The number  $n$  is to be added to the given list. If  $n$  is an integer, which of the following could be the median of the new list of seven numbers?
- 3, 4, 6, 7, 10, 12
- 3,10
  - 4,12
  - 6,7
  - 5,6
12. Radha's picture frame is 80 cm by 60 cm then find its diagonal.
- 95cm
  - 100cm
  - 90 cm
  - 75 cm

13.

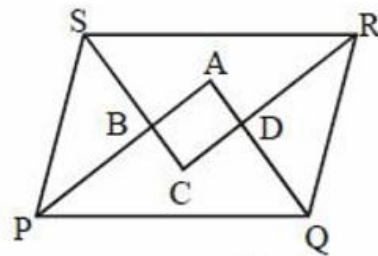
$$\frac{1}{x-1} = \frac{2}{x-2}$$

- $X = 4$
- $X = 0$
- $X = 6$
- $X = 3$

14. In the standard form of a rational number, the common factor of numerator and denominator is always

- 2
- 2
- 1
- 0

15. In the following figure the bisector of interior angles of the parallelogram PQRS enclose a quadrilateral ABCD. Find  $\angle ADC$ .



- 60
- 90
- 30
- 45



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16. Manisha wants to buy a book that costs Rs.150. She has Rs.42 saved already. She can earn Rs.6 an hour by baby sitting on weekends. How many hours must Manisha work to save the money she needs?

- a) 15 hours
- b) 9 hours
- c) 18 hours
- d) 22 hours

17. If  $x = \sqrt{72 + \sqrt{72 + \sqrt{72 + \sqrt{72\sqrt{72}}}}}$ , then the value of x is \_\_\_\_\_.

- a) 8
- b) 5
- c) 3
- d) 9

18. Find the least number that must be subtracted to make the number a perfect square 7250.

- a) 35
- b) 45
- c) 25
- d) None of these

19. What will be the value of

$$3 + 2 \times (10 - 4) \div 2 - 1?$$

- a) 30
- b) 8
- c) 14
- d) 15

20. If the cost of an object is directly proportional to the square of number of objects sold. If cost of 20 objects is Rs. 2000. Then find the cost of 45 objects.

- a) Rs. 1245
- b) Rs. 10125
- c) Rs. 25500
- d) Rs. 1025

21. Ram gets 3 marks for each correct sum and loses 2 marks for each incorrect sum. He does 24 sums and obtains 37 marks. What was the number of correct sums?

- a) 30
- b) 17
- c) 19
- d) 22

### Section-3, Science

(2 marks for correct answer. 0.50 mark will be deducted for wrong answer)

22. What is the splitting of a compound using electricity called?

- a) Electrolysis
- b) Electro Chemistry
- c) Electrolyte
- d) Electrokinesis

23. Lysosomes are also called \_\_\_\_\_.

- a) Digestive bags
- b) Suicidal bag
- c) Scavengers of the cell
- d) All



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24. The substances that are transported through umbilical cord is \_\_\_\_\_.
- Carbon dioxide
  - Urea
  - Antibodies
  - All of these
25. Which one of the following is called pond silk?
- Spirogyra
  - Water silk
  - Mermaid's tresses
  - All
26. Which cell is called Powerhouse of the cell?
- Mitochondria
  - Endoplasmic reticulum
  - Ribosome
  - Lysosome
27. \_\_\_\_\_ is a medical procedure used primarily in prenatal diagnosis of chromosomal abnormalities and fetal infections, as well as for sex determination.
- Forceps
  - Amniocentesis
  - Caesarean
  - None
28. Carnivorous plants attract, capture and digest insects to obtain nutrients. What makes carnivorous plants different from other plants?
- They cannot respire like other plants.
  - They can grow faster than other plants.
  - They can grow in nutrient-poor soils.
  - They can grow in very cold regions.
29. Which of the following describes the advantage of ploughing?
- It turns over the upper layer of the soil, bringing nutrients to the surface.
  - Ploughing improves the water retaining capacity of the soil.
  - It improves air circulation so that roots can respire easily.
  - All
30. A stone is suspended from a beam by a rope in a fixed position. Which forces are acting on the stone?
- Friction and magnetism
  - Gravity and electricity
  - Electrostatic and magnetism
  - Gravity and tension
31. Deoxygenated blood
- Flows to right side of the heart from lungs.
  - Flows to left side of the heart from the lungs.
  - Flows to lungs from the right side of the heart.
  - Flows to lungs from the left side of the heart.



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32. Lactobacillus is the most common probiotic found in \_\_\_\_\_.
- a) Yogurt
  - b) Pulse
  - c) both
  - d) None
33. If the rate of change of momentum is small. What will be the net resultant force?
- a) The net resultant force will also be small.
  - b) The net resultant force will also be big.
  - c) The net resultant force will also be equal.
  - d) None of these

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### Section-4, English

(1.5 marks for correct answer. 0.25 mark will be deducted for wrong answer)

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34. Identify the tense of the sentence given below.

**I wrote articles on different topics.**

- a) Past indefinite tense
  - b) Past Continuous Tense
  - c) Past Perfect Continuous Tense
  - d) Past Perfect Tense
35. Choose the option which best expresses the given sentence in indirect speech.
- He said, "I know a better shop."**
- a) He said that he had knew a better shop.
  - b) He said that he knew a better shop.
  - c) He said that I knew a better shop.
  - d) He said that he had known a better shop.

36. Choose the correct option to complete the conversation /dialogue.
- Riya:** With new improvements every year in the cyber world, parents have to \_\_\_\_\_ to continuously know if their kids are safe and sound.

- a) save their own skin
- b) have eyes in the back of their heads
- c) big eyes
- d) None

37. You can always \_\_\_\_\_ Radha for suggestion.

- a) count up
- b) count out
- c) put on
- d) count on

38. Give the exact meaning of the idiom / phrases given below.

To get cold feet

- a) To be afraid
- b) To fall ill/Sick
- c) Feet which are cold
- d) To become heartless

39. How many nouns are there in the sentence given below?

Ramesh gave Rita a few exercises to solve.

- a) 1
- b) 3
- c) 2
- d) 4



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40. Choose the option which shows correct position of an adverb in a sentence:

Ramesh was tall to reach the top rack.  
(enough)

- a) Enough Ramesh was tall to reach the top rack.
- b) Ramesh was tall enough to reach the top rack.
- c) Ramesh was tall to enough reach the top rack.
- d) Ramesh enough was tall to reach the top rack.

41. Choose the most suitable option to complete the sentence.

The property will be divided \_\_\_\_\_ the three sisters.

- a) Between
- b) Among
- c) In
- d) None of these

42. Find Adjective

The wise, handsome owl had orange eyes.

- a) Wise, handsome
- b) Owl
- c) Orange
- d) wise, handsome, orange

43. Find the correct spelt word.

- a) Adventitus
- b) Adventitous
- c) Adventituos
- d) Adventitious

44. Choose the correct spellings from the following.

- a) Conossieur
- b) Connoissure
- c) Connoseur
- d) Connoisseur

45. How long \_\_\_\_\_ (you know) Ramesh and Seema? We met the couple over twenty years ago.

- a) Have you known
- b) You are knowing
- c) Will known
- d) You have known

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### Section-5, Scholars Section

(5 marks for correct answer. 2 marks will be deducted for wrong answer)

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46. Which would do maximum harm to a tree?

- a) the loss of half of its branches
- b) the loss of its bark
- c) the loss of half of its leaves
- d) the loss of all of its leaves

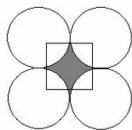


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47. If you chew on a piece of bread long enough, it will begin to taste sweet because:
- a) amylase is breaking down starches to disaccharides
  - b) maltase is breaking down maltose
  - c) lipases are forming fatty acids
  - d) disaccharides are forming glucose
48. Four circles of radius 1 cm are placed in such a way on a plain paper such that each touches the other. Find the area of the space left in between the four circles.



- a)  $0.86 \text{ cm}^2$
- b)  $2.76 \text{ cm}^2$
- c)  $0.87 \text{ cm}^2$
- d) None of these

49. Of the two numbers, 4 times the smaller one is less than 3 times the larger one by 5. If the sum of the numbers is larger than 6 times their difference by 6. Find the sum of the digits of two numbers.
- a) 12
  - b) 34
  - c) 21
  - d) None of these

50. Simplify the expression:

$$\frac{(x-1)(x-2)(x^2-9x+14)}{(x-7)(x^2-3x+2)}$$

- a)  $(x-7)$
- b)  $(x-1)$
- c)  $(x-2)$
- d)  $(x-1)(x-2)$





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