

# Minervaa International Scholarship Examinations

## Sample Question Paper Class-6 Subject- Mathematics



#### **LOGICAL REASONING**

1. A cube has all its faces painted. It is then cut into 64 smaller equal cubes. How many cubes will have exactly 2 faces painted?

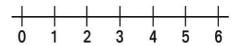
	a)	8	b) 12	c) <b>24</b>	d) 36
2.		means ÷ , - 12 + 3		eans –, and ÷ me	eans + , then what is: d) 10
3.		s in the Eas s P?	st of X which	is in the North	of Z. If P is in the South of Z, then in which direction of
	A	North			
	B	South			
	C	South-Ea	st		
	D	None of t	these		
4.			replaced with ) UIRM	its mirror image c) URMV	(A = Z, B = Y), what is the mirror image of "FIND" ? d) URNE
5.		at comes no 3, 5, 8, 12,	ext in the serie 17?	es?	
	a) 2	.3 b	) 25	c) 27	d) 29

					МΔ	THEMET	rics				
6. What c	lecimal r	epre	sents the	shaded	part?						
a) 0.7	b)	0.07	c)	7.0	d) 0.77						
7. Here i	s a chart	t of fo	our stude	nts and t	he money	they colle	cted:				
<ol> <li>Here is a chart of four students and the money they collected:</li> <li>Name Amount Collected</li> </ol>											
Riya	₹7,250	0									
Amaa	ın ₹8,75	0									
Meera	a ₹6,90	0									
Dev	₹7,850	0									
8. Who	collected	d the	second h	nighest a	mount?						
a) Riya	a b)	Dev	c) M	leera	d) Amaa	n					
9. <b>How</b> n	nany are	corre	ect?								
Which	of the fo	ollowi	ng numb	ers are c	divisible by	5?					
• 4,2 • 8,4											
• 1,	550										
• 3,6											
a) 1	b)	)2	c)	3	d)4						
10.True/					^						
				than 0.19 or than 0.2							
a) Both True b) Both False											
c) Or	ıly A is tru	ue	a) Or	nly B is tru	ue						

	Statement A: All numbers divisible by 10 end in 0. Statement B: All numbers ending in 0 are divisible by 10											
а	Both Truck) (Only A											
12.	Estimate	e the su	m: 3,482	2 + 5,617	7≈?							
а	9,000		b) 10,00	00	c) 8,0	00	d) 9,5	00				
13.	What do	es a ba	r graph r	epreser	nt?							
b c	) The rela ) The dist ) The freq ) The ave	ribution uency	of data	over tim nt categ	ie							
14.	Find the	mode d	of the foll	owing d	ata se	et:						
12,	15, 17, 1	5, 18, <sup>2</sup>	19, 15, 2	0, 17, 1	7							
е	) 15 b) 1	7 c)	18	d) 19								
14.	What is	the succ	cessor o-	f 19?								
а	)–18	b)	<b>–20</b>	c)-17		d) 19						
15.	Which n	umber	is farthe	st to the	eleft o	n a nur	nber lin	e?				
а	)–21	b)	<b>–15</b>	c)-10	0	d)0						
16	Which is	s correc	et?									
а	)-7>3 c)-8>-	3	b)- d)-	-2<-9 -1>-6								
17.	. How ma	ny are	correct?									
•	Which o -5 3 -9 0	f the fo	llowing ir	ntegers	are le	ss than	10?					
	)1 b)2	,	,									
18.	What is	the sm	allest wh	ole num	nber?							
а	)-1 b)0	c) 1	d) 2									
	Which o		•		e num	nber bu	t not a	natura	l numl	ber?		
а	)0 b)1	c) 2	d) 3	3								

11. True/False with reasoning:

#### 20. What number is 2 steps after 3?



- a) 4
- b)5
- c) 6
- d) 7

#### 21. What is the sum of the first five whole numbers?

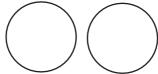
- a) 10
- b) 15
- c) 5
- d) 20

#### 22. Cross-topic blend (Whole number + Multiples):

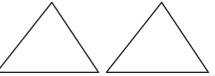
Which is a multiple of both 4 and 6?

- a) 20
- b) 24
- c) 26
- d) 30

#### 23. Which set shows the collection of triangles?









- a) {circle, square}
- b) {2 triangles}
- c) {triangle, triangle, triangle}
- d) {3 shapes}

#### 24. How many are correct?

Which of the following can be considered as sets?

- Set of even numbers
- Set of tasty dishes
- Set of prime numbers below 10
- Set of old books in a library
- a) 1
- b) 2
- c) 3
- d)4

#### 25. Match the following:

Set Description

Set Type

 $A = \{2, 4, 6\}$ 

a. Infinite Set

B = {even numbers} b. Finite Set

 $C = \{\}$ 

c. Empty Set

a) A-b, B-a, C-c
b) A-a, B-c, C-b
c) A-c, B-b, C-a
d) A-b, B-c, C-a

- 26. What is 3/5 of 20?
  - a) 10 b) 12 c) 14 d) 15
- 27. True/False with reasoning:

Statement A: A proper fraction is less than 1.

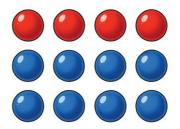
Statement B: 7/7 is a proper fraction.

- a) Both True
- b) Both False
- c) Only A is true
- d) Only B is true
- 28. Which is correct?

Which pair is in proportion?

b) 3:6 and 6:12 a) 2:3 and 4:5 c) 5:2 and 10:3 d) 1:2 and 2:4

What is the ratio of red to blue marbles?



- a) 4:12
- b) 1:3
- c) 2:3
- d) 1:2
- 29. How many are correct?

Which of the following represent the ratio 3:4?

- 6:8
- 9:12
- 12:16
- 4:5
- a) 1
- b) 2
- c)3
- d)4
- 30. Which is the correct expression for "7 more than a number x"?
  - a) 7x
- b)x-7
- c) x + 7 d) 7 x
- 31. Match the following:

Statement Expression

3 more than a number y a. y + 3

5 times a number x b. 5x

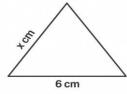
A number a decreased by 2 c. a – 2

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

32. What is the algebraic expression for "a number n subtracted from 10"?

- a) 10 + n
- b) n 10
- c) 10 n
- d) 10n

33. What is the value of x if the third side is also 6 cm?



Total perimeter = 20 cm

- a)8
- b)6
- c) 10
- d) 12

34. Match the following:

Word Statement Algebraic Expression

Double a number x a.  $x \div 2$ 

Half of a number y b. 2x

3 more than a number z c. z + 3

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

35. Which of the following is a line segment?

- a) Extends forever in both directions
- b) Has a starting point but no end
- c) Has two endpoints
- d) Is curved and closed

36. What is this figure?



- a) Line AB
- b) Line segment AB
- c) Ray AB
- d) Triangle AB

37. Which of the following is a polygon?

- a) A figure with curved lines
- b) A closed figure with 3 or more straight sides
- c) A circle
- d) A ray

### 38. True/False with reasoning: Statement A: A circle has no sides. Statement B: A triangle is a polygon. a) Both True b) Both False c) Only A is true d) Only B is true 39. How many are quadrilaterals? Square Triangle • Rhombus Rectangle b)2 c) 3 a) 1 d)4 40. A circle is divided into 4 equal parts. What is the angle of each part? b) 60° c) 90° a) 45° d) 180° 41. Which of these figures has 2 lines of symmetry? a) Circle b) Rectangle c) Equilateral triangle d) Square 42. How many lines of symmetry does the shape have?

a) 0

a) 22 cm<sup>2</sup>

a) 10

10, 15, 8, 12, 20

b) 1

b) 28 cm<sup>2</sup>

44. Find the median of the following data set:

b) 12

c) 2

c) 14 cm<sup>2</sup>

43. What is the area of a rectangle of length 7 cm and breadth 4 cm?

c)8

d)3

d) 11 cm<sup>2</sup>

d) 20

39.	39. <i>True/False with reasoning:</i> Statement A: A circle has no sides. Statement B: A triangle is a polygon.											
	a) Both True b) Both False c) Only A is true d) Only B is true											
40.	40. How many are quadrilaterals?											
	a) 1	b)2	c)3	d)4								
41.	Acirc	le is divide	d into 4 e	qual part	s. W	hat is the a	ngle of each part?					
	a) 4	5°	b) 60°	c) 90°	°d) 1	80°						
42.	Which	n of these	figures ha	as 2 lines	of sy	mmetry?						
	c) E	ircle ectangle quilateral t quare	riangle									
43.	The p	perimeter o	of a squa	re is 36	cm. V	What is its	area?					
	a) 36	cm <sup>2</sup>	b) 81	cm <sup>2</sup>	c)14	14cm <sup>2</sup>	d) 324cm <sup>2</sup>					
44.	Wh	at is the ar	ea of a re	ctangle c	of len	gth 7 cm aı	nd breadth 4 cm?					
	a)	22 cm <sup>2</sup>		b) 28 cm	2	c) 14 cm²	d) 11 cm <sup>2</sup>					
45.	Fin	d the med	ian of the	following	g data	a set: 10,						
	15,	8, 12, 20										
	a)	10 b) 12		c)8		d) 20						

46. How many are symmetrical?

- Square
- Rectangle
- Circle
- Irregular Polygon
- a) 1
- b)2
- c) 3
- d)4

47. A cube has how many faces, edges, and vertices?

- a) 6, 8, 12
- b) 6, 12, 8
- c) 8, 6, 12
- d) 12, 8, 6

48. What type of angle is shown between the hour and minute hand?

- a) Acute
- b) Right
- c) Obtuse
- d) Straight

49. The following pictograph shows the total number of students of a school in different years.

Year	Number of students ( $ hootnotesize{1}{ hozentinesize{1}{ hootnotesize{1}{ hootnotesize{1}{ hootnotesize{1}$								
2014		,	7	7	7	7	7		
2015	7	7	7	<b>?</b>	7	7	7	7	<del>\</del>
2016	1	7	7	Î	Î				
2017	7	7	7	<b>?</b>	<b>?</b>	<u> </u>	<b>?</b>	7	
2018	1	7	7	7					
2019	7	7							

How many students were there in year 2015?

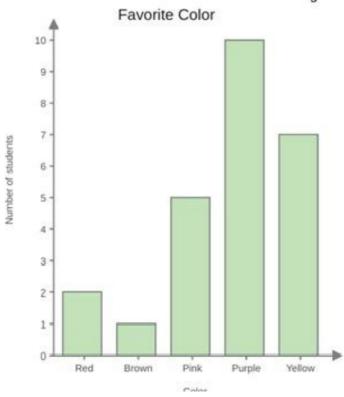
a. 2019, 900

b. 2019, 200

c. 2015, 900

d. 2015, 200

50. The bar graph below shows the favorite color of the students in Mr. Angel's class.



How many more students in Mr. Angel's class like Purple than Pink?

- a. 15
- c. 5

- b. 7
- d.10

## **Answer Key**

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