

# SYLLABAX

OLYMPIAD PRACTICE SERIES

## Class 6 – Olympiad Practice Paper

Total Questions: 50 | Mathematics · Science · Logical Reasoning · English · General Knowledge

✓ All answers verified | ✓ Olympiad level | ✓ Free to download

**Instructions:** Each question carries 1 mark. Only one option (A/B/C/D) is correct. No negative marking. Answer key is provided at the end of this paper. | **Time suggested:** 45 minutes.

### MATHEMATICS

- The ages of A and B are in ratio 3:5. After 4 years the ratio becomes 2:3. What is A's current age?  
A) 9  
B) 10  
C) 12  
D) 15
- A train 180 m long passes a 120 m platform in 15 seconds. What is the speed in km/h?  
A) 54  
B) 60  
C) 72  
D) 90
- What is the sum:  $1 + 2 + 3 + \dots + 50$ ?  
A) 1250  
B) 1275  
C) 1300  
D) 1325
- Find the smallest number that leaves remainder 3 when divided by 7 AND remainder 2 when divided by 5.  
A) 12  
B) 17  
C) 22  
D) 27
- The sum of interior angles of a polygon is  $900^\circ$ . How many sides does it have?  
A) 6  
B) 7  
C) 8  
D) 9
- A boat goes 15 km upstream in 3 hours and 20 km downstream in 2 hours. What is the speed of the current?  
A) 1.5 km/h  
B) 2 km/h  
C) 2.5 km/h  
D) 3 km/h
- If  $3a + 2b = 18$  and  $2a - b = 5$ , find the value of  $a + b$ .  
A) 5  
B) 6  
C) 7  
D) 8

8. A ₹2000 article is sold after successive discounts of 10% and 15%. What is the final selling price?

- A) ₹1400
- C) ₹1530

- B) ₹1450
- D) ₹1600

9. What is the remainder when  $2^{100}$  is divided by 7?

- A) 1
- C) 3

- B) 2
- D) 4

10. The difference between compound interest and simple interest on ₹5000 at 4% per annum for 2 years is:

- A) ₹4
- C) ₹8

- B) ₹6
- D) ₹10

11. The sum of a number and its square is 156. What is the number?

- A) 10
- C) 12

- B) 11
- D) 13

12. A bag has 5 red, 3 blue, and 2 green balls. Two balls are drawn without replacement.  $P(\text{both red}) = ?$

- A)  $1/5$
- C)  $1/4$

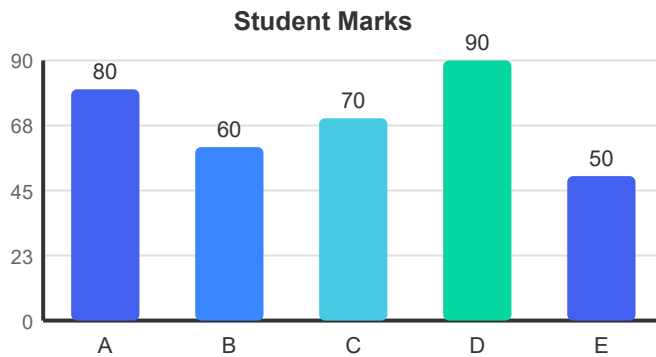
- B)  $2/9$
- D)  $5/18$

13. A cone has radius 5 cm and slant height 13 cm. What is its vertical height?

- A) 8 cm
- C) 12 cm

- B) 10 cm
- D) 14 cm

14. The bar chart shows marks scored by 5 students. What is the mean score?



- A) 65
- C) 75

- B) 70
- D) 80

15. How many integers from 1 to 100 are divisible by 3 or 5 (or both)?

- A) 44
- C) 50

- B) 47
- D) 53

## SCIENCE

16. Using  $F = ma$ : a 1200 kg car accelerates from 0 to 20 m/s in 10 seconds. What is the net force?

- A) 600 N
- C) 2400 N

- B) 1200 N
- D) 4800 N



29. Going DOWN a group in the periodic table, atomic radius:

- A) Decreases  
B) Stays the same  
C) Increases  
D) Varies randomly

30. A force of 20 N acts at  $60^\circ$  to displacement of 5 m. Work done = ? ( $\cos 60^\circ = 0.5$ )

- A) 25 J  
B) 50 J  
C) 75 J  
D) 100 J

## LOGICAL REASONING

31. Find the next term: 1, 3, 6, 10, 15, 21, \_\_\_

- A) 25  
B) 27  
C) 28  
D) 30

32. Find the odd one out: 4, 8, 9, 16, 25, 36

- A) 4  
B) 8  
C) 16  
D) 25

33. What shape comes next in the pattern?



- A) Triangle  
B) Circle  
C) Square  
D) Star

34. A is twice as old as B. Ten years ago, A was 3 times as old as B. What is A's current age?

- A) 30  
B) 35  
C) 40  
D) 45

35. In a code, each digit is increased by 1 ( $3456 \rightarrow 4567$ ). What is the code for 7891?

- A) 8902  
B) 8910  
C) 6780  
D) 9001

36. In a class, 40% are boys. There are 24 girls. How many students in total?

- A) 36  
B) 38  
C) 40  
D) 42

37. Complete the analogy: Longitude : Meridian :: Latitude : ?

- A) Equator  
B) Parallel  
C) Prime  
D) Tropics

38. In how many different ways can 4 people sit in a row?

- A) 12  
B) 16  
C) 20  
D) 24

39. What is the sum of all 2-digit multiples of 7?

- A) 672  
B) 700  
C) 728  
D) 756

40. 100 students: 60 like cricket, 50 like football, 30 like BOTH. How many like ONLY cricket?

- A) 20  
B) 25  
C) 30  
D) 35

## ENGLISH

41. Identify the GERUND in: 'Swimming is excellent exercise.'

- A) Swimming  
B) excellent  
C) exercise  
D) is

42. Convert to PASSIVE VOICE: 'The chef prepared the meal.'

- A) The meal was prepared by the chef.  
B) The meal has been prepared by the chef.  
C) The meal is prepared by the chef.  
D) The meal had been prepared by the chef.

43. Choose the correct form: 'The committee \_\_\_ holding its annual meeting.'

- A) are  
B) is  
C) were  
D) have

44. Identify the figure of speech: 'She has a heart of gold.'

- A) Simile  
B) Hyperbole  
C) Metaphor  
D) Oxymoron

45. Choose the correct meaning of 'AMELIORATE':

- A) To worsen  
B) To improve  
C) To destroy  
D) To confuse

## GENERAL KNOWLEDGE

46. The Tropic of Cancer passes through how many Indian states?

- A) 6  
B) 7  
C) 8  
D) 9

47. The chemical name of Vitamin C is:

- A) Retinol  
B) Thiamine  
C) Ascorbic acid  
D) Riboflavin

48. Who invented the World Wide Web?

- A) Bill Gates  
B) Steve Jobs  
C) Tim Berners-Lee  
D) Vint Cerf

49. Which country has won the most FIFA World Cup titles?

- A) Germany  
B) Argentina  
C) Brazil  
D) Italy

50. The element with symbol 'Hg' is:

- A) Gold  
B) Silver  
C) Mercury  
D) Lead

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## Answer Key – Class 6 Olympiad Practice Paper

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

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