

# SYLLABAX

OLYMPIAD PRACTICE SERIES

## Class 5 – 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

- If  $a/b = 3/5$  and  $b/c = 2/3$ , what is the ratio  $a : b : c$ ?  
A) 3:5:6  
B) 6:10:15  
C) 2:5:3  
D) 1:2:3
- What is the value of  $2^8 - 2^7$ ?  
A) 2  
B) 16  
C) 64  
D) 128
- The area of a square is  $196 \text{ cm}^2$ . What is its perimeter?  
A) 28 cm  
B) 42 cm  
C) 56 cm  
D) 64 cm
- What is the sum of interior angles of an octagon (8-sided polygon)?  
A)  $720^\circ$   
B)  $900^\circ$   
C)  $1080^\circ$   
D)  $1260^\circ$
- What is the greatest number that divides 108, 144, and 180 leaving NO remainder?  
A) 18  
B) 24  
C) 36  
D) 48
- A train 240 m long passes a pole in 12 seconds. What is its speed in km/h?  
A) 54  
B) 60  
C) 72  
D) 90
- Solve:  $3x - 7 = 2x + 5$ . What is  $x$ ?  
A) 10  
B) 11  
C) 12  
D) 13

8. What is the value of  $(0.5)^4$ ?

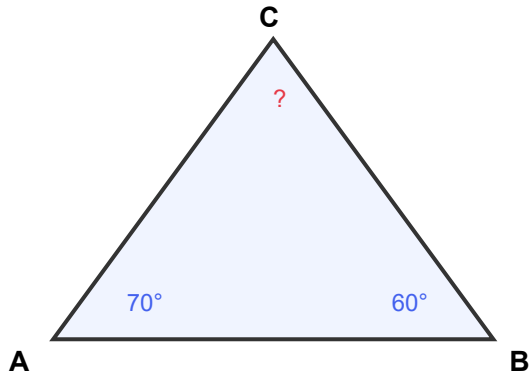
A) 0.0125

B) 0.0250

C) 0.0500

D) 0.0625

9. In triangle ABC,  $\angle A = 70^\circ$  and  $\angle B = 60^\circ$ . What is  $\angle C$ ?



A)  $40^\circ$

B)  $50^\circ$

C)  $60^\circ$

D)  $70^\circ$

10. A mobile is bought at 20% discount on marked price of ₹15,000 and sold at 10% profit on cost. What is the selling price?

A) ₹12,000

B) ₹12,600

C) ₹13,200

D) ₹13,500

11. Simplify:  $(\frac{3}{4} \div \frac{9}{16}) \times (\frac{2}{3} - \frac{1}{6})$

A)  $\frac{1}{3}$

B)  $\frac{1}{2}$

C)  $\frac{2}{3}$

D)  $\frac{4}{3}$

12. What is the next term: 1, 8, 27, 64, 125, \_\_\_?

A) 196

B) 216

C) 225

D) 343

13. A bag has 5 red, 4 blue, and 3 green balls. One ball is drawn at random. What is the probability it is NOT red?

A)  $\frac{5}{12}$

B)  $\frac{7}{12}$

C)  $\frac{1}{2}$

D)  $\frac{3}{4}$



22. The Milky Way is classified as a:

- A) Solar system  
B) Planet  
C) Galaxy  
D) Constellation

23. Which vitamin is synthesised by the human body in the presence of SUNLIGHT?

- A) Vitamin A  
B) Vitamin B  
C) Vitamin C  
D) Vitamin D

24. In which part of the cell is PROTEIN SYNTHESIS carried out?

- A) Nucleus  
B) Mitochondria  
C) Ribosome  
D) Golgi body

25. A prism separates white light because different colours have different:

- A) Wavelengths (refracting at different angles)  
B) Amplitudes  
C) Speeds in vacuum  
D) Intensities

26. What causes the bending of light as it passes from one medium to another?

- A) Reflection  
B) Diffraction  
C) Refraction  
D) Scattering

27. The molecular formula of glucose is:

- A)  $C_6H_{12}O_6$   
B)  $C_{12}H_{22}O_{11}$   
C)  $CH_2O$   
D)  $C_2H_5OH$

28. Which gas is most commonly used in FIRE EXTINGUISHERS?

- A) Oxygen  
B) Nitrogen  
C) Carbon dioxide  
D) Argon

29. If the resistance of a wire is  $5\Omega$  and its length is doubled (area unchanged), the new resistance is:

- A)  $5\Omega$   
B)  $10\Omega$   
C)  $15\Omega$   
D)  $20\Omega$

30. In the human body, digestion of PROTEINS primarily begins in the:

- A) Mouth  
B) Stomach  
C) Small intestine  
D) Large intestine

## LOGICAL REASONING

31. Find the next number: 2, 3, 5, 7, 11, 13, \_\_\_ (prime numbers)

- A) 14  
B) 15  
C) 17  
D) 19

32. Find the next letter: Z, X, V, T, R, \_\_\_ (moving backward by 2)

- A) N  
B) P  
C) Q  
D) S

33. Find the odd one out: 256, 289, 324, 356, 400

- A) 256  
B) 289  
C) 356  
D) 400

34. What comes next in the pattern shown?



- A) Triangle
- C) Circle

- B) Square
- D) Star

35. If FRIEND is coded as GSJFOE (each letter +1), what is the code for BRAVE?

- A) CSBWF
- C) CQBVE

- B) ARBVE
- D) CSAVF

36. A person walks 3 km North, then 4 km West. How far is he from the starting point?

- A) 3 km
- C) 5 km

- B) 4 km
- D) 7 km

37. In a row of 20 students, Arun is 8th from the left. Bina is 5 places to his RIGHT. What is Bina's position from the RIGHT end?

- A) 6
- C) 8

- B) 7
- D) 9

38. A can do a work in 10 days, B in 15 days. Working together, in how many days will they finish?

- A) 4
- C) 6

- B) 5
- D) 8

39. Complete the analogy: Isosceles triangle : Two equal sides :: Equilateral triangle : ?

- A) One equal side
- C) Three equal sides

- B) No equal sides
- D) Two parallel sides

40. In how many different ways can the letters of the word 'CAT' be arranged?

- A) 3
- C) 6

- B) 4
- D) 9

## ENGLISH

41. What figure of speech is used in: 'The wind WHISPERED through the trees'?

- A) Simile
- C) Personification

- B) Metaphor
- D) Alliteration

42. Choose the CORRECT sentence:

- A) If I was you, I would study harder.
- C) If I am you, I will study harder.

- B) If I were you, I would study harder.
- D) If I be you, I would study harder.

43. What is the meaning of the prefix 'MICRO'?

- A) Large
- C) Many

- B) Small
- D) Few

44. What is a CLAUSE?

- A) A group of words with no verb
- C) A group of words containing a subject and a verb

- B) A single word that modifies a noun
- D) A describing word

45. Choose the CORRECTLY spelled word:

- A) Acquaintence
- C) Acquaintance

- B) Acquaintance
- D) Acquaintance

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## GENERAL KNOWLEDGE

46. Which country has the LARGEST area in the world?

- A) China
- C) USA

- B) Canada
- D) Russia

47. The currency used in Japan is:

- A) Yuan
- C) Yen

- B) Won
- D) Baht

48. Mount Everest is located in which mountain range?

- A) Alps
- C) Himalayas

- B) Andes
- D) Rockies

49. What is the chemical symbol for IRON?

- A) Ir
- C) Fe

- B) In
- D) Fr

50. The United Nations (UN) was founded in which year?

- A) 1919
- C) 1945

- B) 1939
  - D) 1950
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## Answer Key – Class 5 Olympiad Practice Paper

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

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