SOF INTERNATIONAL MATHEMATICS OLYMPIAD

Total Questions : 50   Time : 1 hr.

PATTERN & MARKING SCHEME				
Section	(1) Logical Reasoning	(2) Mathematical Reasoning	(3) Everyday Mathematics	(4) Achievers Section
No. of Questions	15	20	10	5
Marks per Ques.	1	1	1	3

SYLLABUS

Section – 1 : Verbal and Non-Verbal Reasoning.

Section – 2 : Knowing our Numbers, Whole Numbers, Playing with Numbers, Basic Geometrical Ideas, Understanding Elementary Shapes, Integers, Fractions, Decimals, Data Handling, Mensuration, Algebra, Ratio And Proportion, Symmetry, Practical Geometry

Section – 3 : The Syllabus of this section will be based on the syllabus of Mathematical Reasoning.

Section – 4 : Higher Order Thinking Questions - Syllabus as per Section – 2.

LOGICAL REASONING

1. Rearrange the following letters to make a single word and then choose the category to which it belongs.

F G O R

(A) City   (B) Animal
(C) Vegetable   (D) Person

2. Joy wants to save ₹ 50 to buy a pair of roller blades. He plans to save ₹ 2 in the first month, ₹ 4 in the second month, ₹ 6 in the third month, and ₹ 8 in the fourth month.

Month	Amount saved during month	Total savings
1	₹ 2	₹ 2
2	₹ 4	₹ 6
3	₹ 6	₹ 12
4	₹ 8	₹ 20
•	•	•
•	•	•
•	•	•

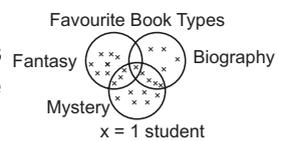If Joy continues this savings pattern, how many months will Joy take to save ₹ 50 ?
(A) 5 months   (B) 7 months
(C) 9 months   (D) 13 months

3. $\triangle \triangle = \square \triangle \square$, $\triangle \square = \bigcirc \bigcirc$, $\triangle = 50$

Using the diagram above, which of the following statements is true?

(A) $\bigcirc < \triangle$ (B) $\square > \bigcirc$
(C) $\triangle < \square$ (D) $\triangle < \bigcirc$

4. According to the diagram, how many students have more than one favourite type of book?

Favourite Book Types
Fantasy — Biography — Mystery
x = 1 student

(A) 3   (B) 5   (C) 7   (D) 8

MATHEMATICAL REASONING

5. In Parul's garden, there are 25 rows of vegetables. She has five more rows of peppers than tomatoes and two fewer rows of cucumbers than tomatoes. If y represents the number of rows of tomatoes in the garden, which number sentence can be used to find how many rows of each vegetable were planted?

(A) $y + (y + 5) + (y + 2) + y = 25$
(B) $(y + 5) + y = 25$
(C) $(y + 5) + (y - 2) = 25$
(D) $(y + 5) + (y - 2) + y = 25$

6. Which of the following figures have at least two lines of symmetry?

P   Q   R   S

(A) Only P   (B) Both P and Q
(C) Both Q and R   (D) P, Q, R and S

7. Subtract 29.375 from the sum of 85.75 and 5.9.
(A) 62.275   (B) 63.275
(C) 64.275   (D) 65.275

8. The five-day forecast for the South Pole lists the low temperatures (in Fahrenheit) as –24°, –28°, –29°, –25°, and –30°. Which choice shows the temperatures in order from the lowest to the highest?

(A) −24°, −25°, −28°, −29°, −30°
(B) −30°, −28°, −29°, −25°, −24°
(C) −30°, −29°, −28°, −25°, −24°
(D) −30°, −29°, −28°, −24°, −25°

9. What is the value of the given expression?

$$3 + 3 × 3(4 + 3)$$

(A) 38 (B) 42

(C) 45 (D) 66

10. Mohit is selling candy bars. He has chocolate bars, nut bars, and mint bars. If a customer buys two bars, and the bars are not of the same type, how many different combinations are possible?
(A) 3 (B) 6
(C) 9 (D) 12

EVERYDAY MATHEMATICS

11. Vinita can type 28 words per minute. At this rate, how many words can Vinita type in 5.5 minutes?
(A) 154 (B) 157
(C) 159 (D) 162

12. At a school, there are 704 desks to place into 22 classrooms. If the same number of desks is placed in each classroom, how many desks will be there in each room?

(A) 32 (B) 34
(C) 42 (D) 44

13. A vessel has 5 litres 120 millilitres of mango shake. How many glasses each of 40 ml capacity, can be filled with it?
(A) 122 (B) 130
(C) 118 (D) 128

ACHIEVERS SECTION

14. Fill in the blanks:
(i) The opposite sides of a parallelogram are ___P___ and ___Q___.
(ii) A quadrilateral having only one pair of opposite sides parallel is called a ___R___.
(iii) A parallelogram having all the sides equal is called a ___S___.

	P	Q	R	S
(A)	Equal	Parallel	Rectangle	Rhombus
(B)	Equal	Non-parallel	Trapezium	Kite
(C)	Equal	Parallel	Trapezium	Rhombus
(D)	Equal	Parallel	Trapezium	Kite

15. Study the statements given below and choose the correct answer.

Statement 1 : Numbers having more than two factors are known as composite numbers.

Statement 2 : A number for which sum of all its factors is equal to twice the number is called a perfect number.

(A) Statement-1 is true and statement-2 is false.
(B) Statement-1 is false and statement-2 is true.
(C) Both statements are true.
(D) Both statements are false.

SPACE FOR ROUGH WORK

ANSWERS

IMO – 1. (B) 2. (B) 3. (A) 4. (D) 5. (D) 6. (D) 7. (A) 8. (C) 9. (D) 10. (A) 11. (A) 12. (A) 13. (D) 14. (C) 15. (C)

How OlympiadHelper.com can help students scoring better in Olympiad examination?

OlympiadHelper.com is the most trusted and comprehensive Olympiad exam diagnostic and preparation tool. It provides an objective, in-depth practice platform to the students preparing for various Olympiad examinations. Our assessments bring to light the strengths and weaknesses of a student on the five-core subject English, Science, Mathematics, Computer Skills and General Knowledge. Our "Online Test Series" is designed to handle most of the school level competitive / Olympiad / diagnostic exams; such as

Science Olympiad Foundation
National Cyber Olympiad (NCO), National Science Olympiad (NSO), International Mathematics Olympiad (IMO), International English Olympiad (IEO), International Sports & Knowledge Olympiad (ISKO) exams, conducted by Science Olympiad Foundation (SOF)

Educational Initiatives
ASSET – Mathematics, ASSET – Science and ASSET – English exams, conducted by Educational Initiatives

Macmillan Education
IAIS-Mathematics, IAIS-Science, IAIS-English and IAIS - Digital Technology (formerly IAIS-Computer) exams, conducted by Macmillan Education in partnership with Educational Assessment

Silver Zone
International Informatics Olympiad (iIO), International Olympiad of Science (iOS), International Olympiad of Mathematics (iOM), International Olympiad of English Language (iOEL), SKGKO and iTHO exams, conducted by Silver Zone

and many other similar examinations.

We are
The Most Trusted Olympiad Diagnostic and Preparation Tool

Subscribe Now

Use coupon **"Test20"** to get 20% discount on Subscription

Most of the Olympiad exams are conducted on the similar syllabus that kids are studying at school. It means that they do not require additional reference books for the preparation of these exams. However, at the same time questions asked in these exams are quite different than what kids learn in the school. Questions are trickier and conceptual.

To excel in 'Olympiad Exams', it is essential for the students to understand the exam pattern, evaluate and prepare themselves on the Olympiad standard questions.

Following are the few impressive features that make "OlympiadHelper.com" the most comprehensive and trusted tool for Olympiad Exam

Get 50 Chapter-wise 20 Sample and 3 Mock Tests in each of the following subjects

- Cyber/Computer
- Science
- Mathematics
- English
- General Knowledge

Subscribe Now

1. Comprehensive Dashboard: Monitor your overall Olympiad preparation progress from a single screen. This screen is very useful for parents. It gives a complete detail about how the kid is using the Tool. It gives details such as till now how many tests they have completed, when was the last time they have completed their chapter-wise, sample, mock or review tests and what was their performance in the last test. Just one glance and you will get a complete understanding on the status of kids preparation.

2. Chapter-wise Tests: Currently, the biggest problem to the students appearing in Olympiad Exams is that; exams are conducted in the mid-session. This gives no time to students for preparation. With "Chapter-wise Test Generation" feature students can start their Olympiad Exam preparation as soon as they complete their first chapter. You will get an option of generating 50 chapter-wise tests in each subscribed subject.

3. Selection of Exam Patterns: To provide our learners; more realistic feel while taking a practice test, we provide an option to select Exam pattern. It also means that you DO NOT NEED to buy a separate package for the same subject of different exams.

4. Sample Tests: 20 Full-length Tests with an option to select exam patterns from All-Inclusive, SOF, SilverZone, IAIS and ASSET

5. Mock Tests: 3 Full-length Tests with an option to select exam patterns from All-Inclusive, SOF, SilverZone, IAIS and ASSET

6. Review Tests: A revolutionary new feature allows kids to attempt only those questions which they have marked wrong. When exams are nearby, this feature becomes very useful while revising the subject.

7. Descriptive Answers: Detailed answers are given to all difficult questions.

8. Mark Question for Review: Have doubts in a question and want to discuss with your parent/teacher? This feature can be very useful.

9. Feedback Option: You will find a link to send feedback/doubts about the question at the bottom of each question. In case you are not satisfied with the question/answer or answer description, you can communicate the same to us, using the link. Our team will get back to you with explanation / resolution / details with 48 hrs.

10. Detailed Strength and Weakness Report: After each test, the student will get a detailed diagnostic report that contains student's performance break-up at the chapter level.

11. Percentile Score: At the end of each mock test, kids are presented with the percentile score. If your percentile score is 86, this means 86% of all the kids who appeared in the same exam have scored either less than or equals to your marks. However, it also means that 14% of the kids have scored more than your marks. This feature helps the kids to evaluate their preparation.

12. Time Tracking: Monitor time spent on a question as well as on a test paper.

13. Reset Test: Facility to re-appear in Chapter-wise / Sample tests.

14. User-Notes: Option to maintain customised notes; On question, on chapter, on subject or in general

Visit www.OlympiadHelper.com for more information.