GRADE IV – SYNERGY MATH OLYMPIAD (SMO)

SMO SYLLABUS & QUESTION BLUEPRINT

DETAILED SYLLABUS

Classes 4–9 Framework | Class 4 Detailed Coverage

1. Examination Framework

Particular	Specification
Class	IV
Subject	Mathematics – Synergy Mathematics Olympiad (SMO)
Total Marks	50
Time	60 Minutes
Core Sections	A. Mathematical & Logical Reasoning; B. Algebra & Mathematical Patterns; C. Geometry & Measurement; D. Problem Solving; E. Brain Teasers & Synergy Challenge
Question Style	Objective, application-based, visual/picture-based, logical and higher-order thinking questions

2. Suggested Question Distribution

Section	**Suggested Marks**	**Question Character**
A. Mathematical & Logical Reasoning	12	Concept + reasoning
B. Mathematical Patterns & APPLICATIONS	10	Patterns + simple algebra
C. Geometry & Measurement	10	Visual + application
D. Problem Solving	10	Multi-step/application
E. Brain Teasers & Synergy Challenge	8	Higher-order thinking
TOTAL	**50**	**60 minutes**

SYNERGY MATHEMATICS OLYMPIAD (SMO)

Class 4 • Official Sample Practice Question Paper (10 Questions)

Grade: Class 4	Total Questions: 10 Questions	Time Allowed: 15 Minutes	Total Marks: 10 Marks

SECTION A: MATHEMATICAL & LOGICAL REASONING

Q1. What is the difference between the place value of 7 and the face value of 4 in the number 74,528?

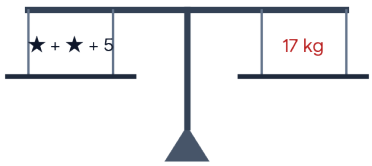
(A) 69,996 (B) 70,000 (C) 69,994 (D) 73,996

Q2. Find the missing number in the given series: 12, 15, 20, 27, 36, [?]

(A) 45 (B) 47 (C) 48 (D) 50

SECTION B: ALGEBRA & MATHEMATICAL PATTERNS (PICTURE-BASED)

Q3. Look at the balanced scale below. If each star (★) weighs the same amount, what is the weight of ONE star?



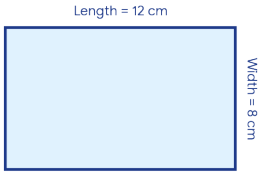
(A) 5 kg (B) 6 kg (C) 7 kg (D) 12 kg

Q4. If 3 Apple icons 🍎 + 🍎 + 🍎 = 24, and 🍎 + 🍌 = 15, what is the value of 🍌 × 2?

(A) 7 (B) 14 (C) 16 (D) 18

SECTION C: GEOMETRY & MEASUREMENT (PICTURE-BASED)

Q5. A rectangular garden has a length of 12 cm and a width of 8 cm. What is the total perimeter of this garden?



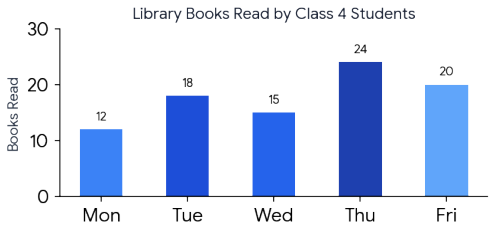
(A) 20 cm (B) 40 cm (C) 96 cm (D) 48 cm

Q6. How many total angles in the Roman numeral 'M' are smaller than a right angle (Acute Angles)?

(A) 1 (B) 2 (C) 3 (D) 4

SECTION D: PROBLEM SOLVING & DATA HANDLING

Q7. The bar graph below shows the number of books read by Class 4 students from Monday to Friday. How many MORE books were read on Thursday than on Monday?



(A) 8 books (B) 10 books (C) 12 books (D) 14 books

Q8. Rahul bought 4 packs of pencils with 12 pencils in each pack. He distributed them equally among 6 friends. How many pencils did each friend receive?

(A) 6 pencils (B) 8 pencils (C) 9 pencils (D) 10 pencils

SECTION E: BRAIN TEASERS & SYNERGY CHALLENGE

Q9. A grandfather clock strikes 1 time at 1 o'clock, 2 times at 2 o'clock, 3 times at 3 o'clock, and so on. How many total strikes will it make from 1 o'clock to 5 o'clock (inclusive)?

(A) 10 times (B) 12 times (C) 15 times (D) 20 times

Q10. I am a 3-digit number. My tens digit is 3 times my hundreds digit. My units digit is 2 more than my tens digit. The sum of all my digits is 16. What number am I?

(A) 135 (B) 268 (C) 398 (D) 246

ANSWER KEY & SOLUTIONS

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
A	B	B	B	B	C	C	B	C	B

Quick Explanations:

- Q1: Place value of 7 = 70,000; Face value of 4 = 4. Difference = 70,000 - 4 = 69,996 (A).
- Q3: 2★ + 5 = 17 ➔ 2★ = 12 ➔ ★ = 6 kg (B).
- Q5: Perimeter = 2 × (12 + 8) = 2 × 20 = 40 cm (B).
- Q7: Thursday = 24, Monday = 12 ➔ 24 - 12 = 12 books (C).
- Q10: Hundreds=2, Tens=6, Units=8 ➔ Number is 268. Sum = 2+6+8 = 16 (B).