

SAMPLE PAPER
2013-14



The actual test paper has 35 questions. Time allowed : 60 minutes. There are 3 sections: 5 questions in section I, 10 in section II and 20 in section III.

SYLLABUS

Section – I (Mental Ability) : Number and Numeration (5 digit numbers), Addition, Subtraction, Multiplication, Division, Geometrical Shapes, Measurement of Time, Measurement of Length, Mass, Perimeter and Capacity, Money, Fractions, Pictorial Representation of Data, Roman Numerals, Numbers upto one Lakh, Multiples and Factors.

Section – II (Logical and Analytical Reasoning) : Problems Based on Figures, Odd One Out, Series Completion, Coding-Decoding, Mathematical Reasoning, Mirror Images, Embedded Figures.

Section – III (Computers and IT) : About Computers (General Information), Evolution of Computers, Parts of Computer, Input and Output Devices, Hardware, Software, MS-Word, Using Windows, Introduction to Internet and Its Uses, Computer Networks, MS-Paint, Latest Developments in the field of IT.

Questions are based on Windows 7 and MS-Office 2010.

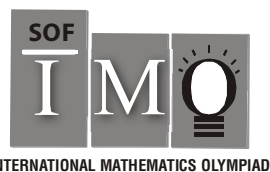


The actual test paper has 35 questions. Time allowed : 60 minutes. There are 2 sections: 10 questions in section I and 25 in section II.

SYLLABUS

Section – I (Mental Ability) : Number and Numeration (5 digit numbers), Place-value, Addition, Subtraction, Multiplication, Division, Comparison, Geometrical Shapes, Symmetry, Measurement of Length, Weight and Capacity, Time, Money, Fractional Numbers, Pictorial Representation of Data, Roman Numerals, Multiples and Factors, Perimeter of Various Shapes, Problems Based on Figures, Odd One Out, Series Completion, Coding-Decoding, Direction Sense, Mathematical Reasoning, Mirror Images, Embedded Figures, Patterns, Conversions, Number Ranking, Alphabetical Test.

Section – II (Science) : Plants, Animals, Human Body, Water, Matter and Force, Transport, General Activities, Earth and Universe.



The actual test paper has 35 questions. Time allowed : 60 minutes. There are 3 sections: 10 questions in section I, 15 in section II and 10 in section III.

Section – I : Logical Reasoning **Section – II :** Mathematical Reasoning

Section – III : Everyday Mathematics

SYLLABUS

Numerals and Number Name (5 digit numbers), Place Value, Roman Numerals, Addition and Subtraction, Geometry : Square, Rectangle, Circle, Closed, Open Figure, Multiplication and Division, Factors and Multiples, Fractions, Measurement, Pictorial Representation of Data, Money, Time, Weight and Capacity, Series and Pattern Formation of Numbers and Figures, Conversions, Comparison, Perimeter of Various Shapes, Direction Sense, Mirror Images, Embedded Figures, Number Ranking, Alphabetical Test, Coding-Decoding, Mathematical Reasoning, Symmetry.



The actual test paper consists of 35 questions. Time Allowed : 60 minutes. There are 3 sections.

SYLLABUS

Section-I: Word and Structure Knowledge : Adverbs, Prepositions, Pronouns (possessive, demonstrative, etc.), Simple tenses, Irregular verbs, Modals (of ability and permission, etc.), Basic questions, etc., Collocations, Spellings, Words related to animals, Household things, Clothes, Basic emotions, Food, Animals and pets, etc.

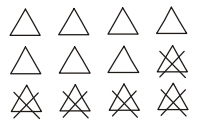
Section-II: Reading : Search for and retrieve information from various text types like stories, Anecdotes, etc., Understand information through pictures, Time-table format, etc., Acquire broad understanding of and look for specific information in short texts like messages, Invitations, etc.

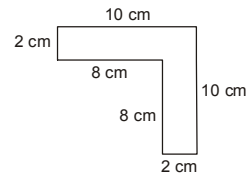
Section-III: Spoken and Written Expression : Ability to understand situation-based variations in functions like apology, greeting, introduction, request, etc.

IN ASSOCIATION WITH



MENTAL ABILITY

1. 5 is one of the factors of _____.
 (A) 36 (B) 30 (C) 42 (D) 21
-
2. The fraction which represents the objects cancelled in the collection  is _____.
 (A) $\frac{5}{12}$ (B) $\frac{12}{5}$ (C) $\frac{1}{2}$ (D) $\frac{2}{3}$
-
3. There were 3856 trees in a forest. In another forest, there were 4795 trees. How many more trees were there in the second forest?
 (A) 930 (B) 939 (C) 1689 (D) 1600
-
4. Perimeter of the given figure is _____.
 (A) 40 cm (B) 50 cm
 (C) 45 cm (D) 55 cm







LOGICAL AND ANALYTICAL REASONING

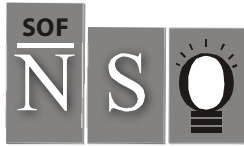
5. What is the next number in the pattern below?
 125, 150, 175, 200, ...?....
 (A) 205 (B) 215 (C) 225 (D) 250
-
6. If 'a' means '+' ; 'b' means '-' ; 'c' means '÷' and 'd' means '×', then the expression
 16 a 4 b 4 c 4 d 2 =
 (A) 10 (B) 7 (C) 18 (D) $2\frac{1}{2}$
-
7. How many triangles are there in the given figure?
 (A) 15 (B) 18
 (C) 17 (D) None of these



COMPUTERS AND INFORMATION TECHNOLOGY



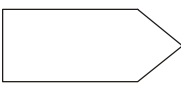

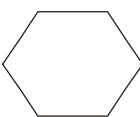
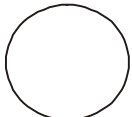
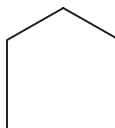

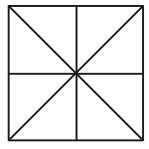
9. Without this we cannot interact with a computer. What is this?
 (A) Scanner (B) Input device (C) Output device (D) Printer
-
10. This key is used to move cursor to the beginning of the line or the screen depending on the software used. Identify the key.
- (A)  (B)  (C)  (D) 
-
11. 1024 bytes equals _____.
 (A) 1 Kilobyte (KB) (B) 1 Megabyte (MB)
 (C) 1 Gigabyte (D) 1 Character

12. Who among the following is known as father of computers ?
 (A) Charles Babbage (B) John Napier
 (C) Blaise Pascal (D) Lady Ada Augusta Lovelace
-
13. While working with MS-Paint which option is used to add name to your drawing ?
 (A) Text tool (B) Pencil tool (C) Air brush tool (D) Erase tool
-
14. Which of the following is a correct internet address?
 (A) ww.yahoo.com (B) www.cartoonnetwork.co
 (C) www.hotmail.com (D) www.indiatime.comm
-
15. In MS-Word, which colour wavy line under a word indicates a spelling or grammar mistake?
 (A) Red (B) Green (C) Yellow (D) Both (A) and (B)
-



National Science Olympiad

MENTAL ABILITY

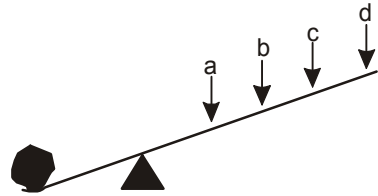
1. Hill 1 is 5,729 metres high. Hill 2 is 4,049 metres high. How much higher is Hill 1 than Hill 2 ?
 (A) 1,720 m (B) 680 m (C) 1,680 m (D) 1,239 m
-
2. Namita drew a figure with 4 square corners. Which could be the figure she drew ?
- (A)  (B) 
- (C)  (D) 
-
3. Which could be one of the faces of a cylinder ?
- (A)  (B)  (C)  (D) 
-
4. The number of squares in the figure is _____.
- (A) 5 (B) 6
 (C) 4 (D) None of these
- 
-
5. Raj has 60 cakes. A quarter of these cakes are distributed. How many cakes are left with him?
 (A) 45 (B) 30 (C) 15 (D) 25

SCIENCE

6. Nowadays, many _____ travel at a supersonic speed.
 (A) Trains (B) Planes (C) Ships (D) Two-wheelers
-
7. When the layer of air that surrounds the Earth presses down, this is
 (A) Heat (B) Temperature
 (C) Air pressure (D) Precipitation
-
8. The energy an object gets from its motion is –
 (A) Electrical energy (B) Chemical energy
 (C) Kinetic energy (D) Potential energy
-
9. The pull or push is
 (A) Gravity (B) Friction (C) Force (D) Inertia
-
10. How long does the Earth take to make one complete revolution around the Sun ?
 (A) 24 hours (B) 28 hours (C) 240 days (D) 365 days

11. Arjun wants to lift the rock as shown in the figure. At which point should he apply the force so that he could lift the rock easily ?

- (A) a
- (B) b
- (C) c
- (D) d

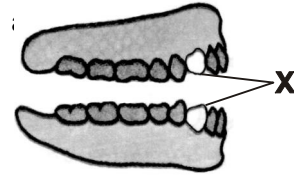


12. Plants use sunlight to make sugar in the process of –

- (A) Oxidation
- (B) Reproduction
- (C) Photosynthesis
- (D) Fertilization

13. The teeth which are marked X in the given figure

- (A) Incisors
- (B) Canines
- (C) Premolars
- (D) Molars



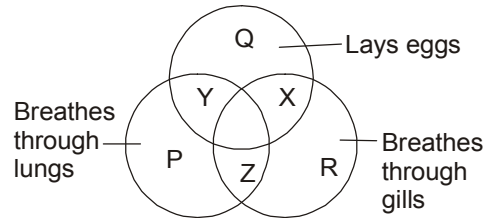
14. Rubber, glass and plastic are good –

- (A) Conductors
- (B) Generators
- (C) Insulators
- (D) Electromagnets

15. Study the following Venn diagram carefully.

Which letter represents the hen?

- (A) Y
- (B) X
- (C) Z
- (D) R



International Mathematics Olympiad

1. There are eighty-six thousand four hundred seconds in a day. How else could this number be written?

- (A) 80,064
- (B) 80,640
- (C) 86,400
- (D) 86,404

2. Leena and her mother made a quilt. They used 56 squares and made 8 rows. How many squares are in each row?

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

3. Jyoti walked 3 km each day. How many kilometres she walked in 14 days?

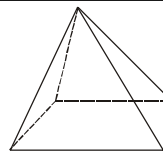
- (A) 42
- (B) 32
- (C) 14
- (D) 11

4. Ram, Rahul and Rohit shared a bag of marbles. The bag contained 272 marbles. How many marbles were left over after the friends shared them equally?

- (A) 90
- (B) 91
- (C) 6
- (D) 2

5. How many vertices does this pyramid have?

- (A) 4
- (B) 5
- (C) 6
- (D) 8



6. Start at 23.
Count by 10 two times.

Add 1.

What number are you at?

- (A) 33
- (B) 44
- (C) 55
- (D) 45

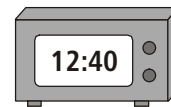
7. If $\diamond \times 4 = \star$
 $\star - \diamond = 330$, then
 What is $\star + \diamond$?
- (A) 110 (B) 440 (C) 550 (D) 990

8. Mohit solved the problem below. Which expression could be used to check his answer?

$$\begin{array}{r} 454 \\ 3 \overline{)1364} \end{array} : \text{Remainder} = 2$$

- (A) $(454 \times 3) + 2$ (B) $(454 \times 2) + 3$
 (C) $(454 + 3) \times 2$ (D) $(454 + 2) \times 3$
9. Which set of numbers is in the order from the greatest to the least?
 (A) 147, 163, 234, 275 (B) 275, 234, 163, 147
 (C) 275, 163, 234, 147 (D) 163, 275, 234, 147

10. Aunt Ruby's clock is shown here.
 If her niece is going to pick her up in 30 minutes,
 what time will be shown on the clock?



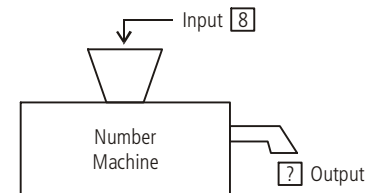
- (A) 12 : 10 (B) 12 : 70 (C) 1 : 10 (D) 1 : 60
11. What is the best unit to use for measuring the amount of soda in a drink can?
 (A) Millilitre (B) Gallon (C) Tablespoon (D) Cup

12. What is the rule for this number pattern?
 1, 1, 2, 6, 24, 120, . . .
- (A) Add 0, then add 1, then add 2, and so on
 (B) Multiply by 1, then multiply by 2, then multiply by 3, and so on
 (C) Multiply by 1, then add 1
 (D) Multiply by two, then subtract 1

13. Danny and Julie have new sticker books. Danny will put 4 stickers in his book every day and Julie will put 6 stickers in her book every day.
 How many stickers will Danny have when Julie has 30 in her book?
- (A) 20 (B) 24 (C) 28 (D) 30

Day	Danny	Julie
1	4	6
2	8	12
3	12	18

14. When a number is put into the machine as shown, a different number comes out.
 If 2 goes in, 6 comes out. If 4 goes in, 12 comes out. If 5 goes in, 15 comes out.
 If 8 goes in, what number should come out?
- (A) 32 (B) 24
 (C) 16 (D) 12



15. There are 3 rows of strawberry plants. Each row has 6 plants. How many strawberry plants are there in all?
 (A) 9 (B) 18 (C) 22 (D) 24



International English Olympiad

WORD AND STRUCTURE KNOWLEDGE

- I build bridges. I am _____.
(A) A plumber (B) An engineer (C) A carpenter

- Choose the odd one.
(A) Sandals (B) Shoes (C) Scarves

- Given below are three sentences. One of them is incorrect. Find the incorrect sentence and mark it in your answer sheet.
(A) Tina is watching television. (B) I lose my pen yesterday.
(C) I like playing football.

- Choose the odd one.
(A) Doctor : Stethoscope (B) Carpenter : Hammer
(C) Mason : Scissors

- Complete each word using the letters from the box.
When the boy whistled, the dog ___ willingly let go of the bone.
(A) Un (B) In (C) Im

Direction (Q. No. 6 to 8) : Fill in the blanks. Choose the right answer.

- Ann always a lot of mistakes when she speaks English.
(A) Make (B) Makes (C) Made

- of the girls in the class did not want to play football.
(A) Little (B) Much (C) Some

- I am looking forward the birthday party.
(A) With (B) On (C) To

- Complete the sentence with the correct spelling of the word.
My brother travelled to South Korea recently. He likes visiting countries.
(A) Phoreign (B) Foreign (C) Foriegn

READING

Direction (Q. No. 10 and 11) : Read the paragraph and choose the correct sentence.

Red woods are among the world's tallest trees. They grow 200 to 300 feet high. The wood, when cut remains remarkably free from decay caused by weather and insects. So it is used to build houses and even outdoor furniture.

- (A) No tree is taller than the red wood tree.
(B) Red wood trees grow very tall.
(C) Trees grow tall all over the world.

- (A) Red wood tree can be easily destroyed by insects.
(B) Red wood trees decay easily.
(C) Red wood trees are suitable for making long lasting park benches.

