



NATIONAL CYBER OLYMPIAD

The actual test paper has 35 questions. Time allowed : 60 minutes. There are 4 sections: 5 questions in section I, 10 in section II, 15 in section III and 5 in section IV.

**SYLLABUS**

**Section – I (Mental Ability) :** Numerals and Number Names (4 digit numbers), Addition, Subtraction, Fractions, Multiplication, Division, Time, Temperature, Straight and Curved Lines, Calendar, Measurement of Length, Weight and Capacity, Geometrical Shapes, Money.

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

**Section – III (Computers and IT) :** Fundamentals of Computer, General Information about Computers, Storage Devices, Parts of Computer, Uses of Computer, Input and Output Devices, Introduction to Internet, MS-Paint, Introduction to MS-Word, Latest Developments in the field of IT.

**Section – IV (Achievers Section) :** Syllabus as per Section – III.

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



NATIONAL SCIENCE OLYMPIAD

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

**SYLLABUS**

**Section – I (Mental Ability) :** Numerals, Number Names and Number Sense (4 digit numbers), Addition, Subtraction, Fractional Numbers, Multiplication, Division, Time, Straight and Curved Lines, Calendar, Measurement of Weight and Capacity, Geometrical Shapes, Money, Patterns, Problems Based on Figures, Odd One Out, Series Completion, Coding-Decoding, Mirror Image, Embedded Figures.

**Section – II (Science) :** Plants and Animals, Human Body, Water, Food, House and Occupation, Transport and Communication, Matter and Materials, Earth and Universe, Birds, Light, Sound and Force.

**Section – III (Achievers Section) :** Syllabus as per Section – II.



INTERNATIONAL MATHEMATICS OLYMPIAD

The actual test paper has 35 questions. Time allowed : 60 minutes. There are 4 sections: 10 questions in section I, 10 in section II, 10 in section III and 5 in section IV.

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

**Section – III :** Everyday Mathematics

**Section – IV (Achievers Section) :** Syllabus as per Section – II.

**SYLLABUS**

Numerals and Number Name, Number Sense (4 digit numbers), Addition, Subtraction, Multiplication, Division, Fractions, Money, Length (conversions), Weight, Capacity, Time, Point, Problems Based on Figures, Odd One Out, Patterns, Series Completion, Coding-Decoding, Mirror Images, Embedded Figures, Straight Lines and Curved Lines, Geometrical Shapes.



INTERNATIONAL ENGLISH OLYMPIAD

The actual test paper consists of 35 questions. Time allowed : 60 minutes. There are 4 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.

**Section – IV (Achievers Section) :** Syllabus as per Sections I, II and III.

IN ASSOCIATION WITH





# National Cyber Olympiad

## MENTAL ABILITY

1. The fraction of unshaded part is \_\_\_\_\_.



- (A)  $\frac{2}{3}$                       (B)  $\frac{1}{3}$                       (C)  $\frac{1}{2}$                       (D)  $\frac{3}{2}$

2. In one trip a car can take 6 people. In how many trips can it take 30 people?

- (A) 5 trips                      (B) 6 trips                      (C) 4 trips                      (D) 10 trips

3. Raman had 28 balloons. In a party, 8 balloons burst. How many are left with him?

- (A) 20                      (B) 21                      (C) 25                      (D) 18

4.  $2 + 3 + 16 = 10 + \square$

- (A) 9                      (B) 21                      (C) 10                      (D) 11

## LOGICAL AND ANALYTICAL REASONING

5. If  $\oplus$  means +,  $\odot$  means -,  $\uparrow$  means >,  $\downarrow$  means <, then which of the following is NOT true?

- (A)  $2 \oplus 5 \uparrow 4$                       (B)  $5 \odot 3 \downarrow 7$                       (C)  $10 \oplus 5 \uparrow 5$                       (D)  $4 \odot 2 \uparrow 7$

6. Find the odd one out.

- (A) Sunday                      (B) January                      (C) Wednesday                      (D) Friday

7. In which one of the following numbers, the digits cannot be rearranged to get another three digit number?

- (A) 400                      (B) 425                      (C) 968                      (D) 129


8. Find odd one out.

- (A)                       (B)                       (C)                       (D) 

## COMPUTERS AND INFORMATION TECHNOLOGY

9. In MS-Word, what tab of the ribbon do you need to be on, to see the document views that are available?

- (A) View                      (B) Home                      (C) Page Layout                      (D) Insert



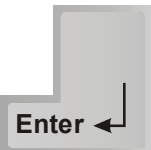

10.  represents which part of computer ?

- (A) Keyboard                      (B) Mouse                      (C) CD                      (D) CPU

11. Which of the following statements about a computer is NOT correct?

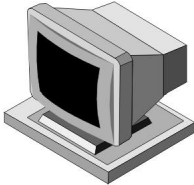
- (A) You can watch movies on it.                      (B) You can solve your sums on it.  
(C) You can play games on it.                      (D) You can cook food with it.

12. The key that erases characters towards the left is \_\_\_\_\_.

- (A)                       (B)   
(C)                       (D) 

13. Find the odd term out.

- (A) Keyboard                      (B) Mouse                      (C) Monitor                      (D) Joystick

14.  is also called \_\_\_\_\_.

- (A) VDU (B) CPU (C) ALU (D) CU

15. MS-Paint is a windows program that is used for \_\_\_\_\_.

- (A) Calculations (B) Writing letters  
(C) Drawing purposes (D) Preparing presentations



# National Science Olympiad

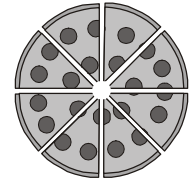
## MENTAL ABILITY

1. If Rahul puts exactly 2 fish in each fishbowl, how many fish will he use to put in 20 bowls ?  
(A) 40 (B) 22 (C) 42 (D) 20

2. Which is true ?  
(A)  $6,293 > 4,526$  (B)  $4,521 < 4,297$  (C)  $6,113 > 6,169$  (D)  $6,750 = 6,150$

3. Which means seven thousand five hundred ninety-two ?  
(A) 7,592 (B) 5,792 (C) 5,972 (D) 7,529

4. Reena ate  $\frac{1}{8}$  of the cake. How much of the cake did she eat ?



5. The chart shows the number of pages Mansi read during four days.

Day	Monday	Tuesday	Wednesday	Thursday
Pages Read	24	17	31	26

How many more pages did Mansi read on Wednesday than on Tuesday ?

- (A) 26 (B) 16 (C) 14 (D) 24

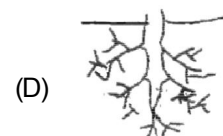
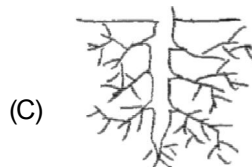
## SCIENCE

6. Solar energy comes from  
(A) The sun (B) Tides (C) Oil (D) Fossils

7. Water droplets that are too heavy to float make  
(A) Fog (B) Clouds (C) Rain (D) Smoke

8. Which of the following does not take the shape of the container it is in ?  
(A) Pencil (B) Oil (C) Water (D) Milk

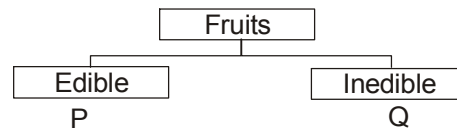
9. The figures below show the roots of some plants. Which of the following will hold the plant most firmly to the soil ?



10. Ducks have  
 (A) Short and broad beaks (B) Broad and flat beaks  
 (C) Slender beaks (D) Pointed beaks

11. Look at the classification table shown.  
 'P' & 'Q' is correctly represented by \_\_\_\_\_.

P	Q
(A) Tomato	Chilli
(B) Mimosa	Dragon fruit
(C) Pineapple	Rubber
(D) Apple	Coconut



12. I protect the brain. I consist of bones which are fused firmly together to form a shell-like structure.  
 What am I?  
 (A) Skull (B) Ribcage (C) Spine (D) Sternum

13. The bird that lays its eggs in the nest of a crow is  
 (A) Cuckoo (B) Parrot (C) Wood pecker (D) Pigeon

14. Which of the following will not dissolve in water?  
 (A) Salt (B) Sugar (C) Sand (D) Baking soda

15. Soil helps trees because soil —  
 (A) Makes food for the trees (B) Moves the tree seeds to new places  
 (C) Gives nutrients to the trees (D) Turns the roots into new trees



# International Mathematics Olympiad

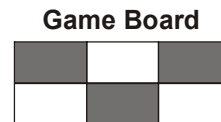
1. A class collected seven hundred fourteen box tops. Which number represents seven hundred fourteen?  
 (A) 704 (B) 714 (C) 740 (D) 741

2. What is the standard form of  $7,000 + 800 + 20 + 5$ ?  
 (A) 7,285 (B) 7,825 (C) 7,852 (D) 7,528

3. Some students count 149 balls in the gym. What is another way of writing the number of balls in the gym?  
 (A) Fourteen nine (B) One fourteen nine  
 (C) One hundred forty-nine (D) One hundred fourteen nine

4. Which place value is used to prove that 5,487 is less than 5,874?  
 (A) Ones place (B) Tens place (C) Hundreds place (D) Thousands place

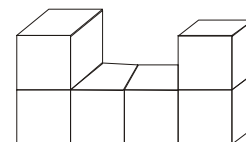
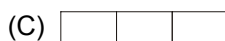
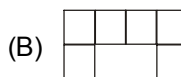
5. Tina shades in 3 spaces on a game board.  
 What fraction of the game board is shaded?  
 (A)  $\frac{3}{6}$  (B)  $\frac{3}{5}$   
 (C)  $\frac{3}{3}$  (D)  $\frac{6}{3}$



6. What property of addition will help you find the answer to the problem:  $6 + 0 = ?$   
 (A) Zero plus any number equals to zero (B) Zero plus any number equals to that number  
 (C) Zero minus any number equals to that number  
 (D) Zero minus any number equals to zero

7. Sara and 3 of her friends together made a poster. They drew 8 rows of squares with 6 squares in each row. How many squares did Sara and her friends draw on the poster?  
 (A) 48 (B) 42 (C) 40 (D) 17

8. How would the given block model look from the top?



9. Komal built a birdhouse at summer camp.

What shape is the piece of wood that was cut out to make the door of her birdhouse?

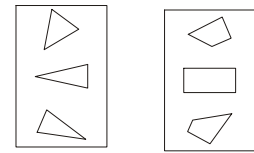
- (A) Triangle (B) Diamond  
(C) Circle (D) Pentagon



10. Mrs. Ryan shows her class two groups of shapes.

Then she asks, "Which rule was used to sort these shapes into groups?"

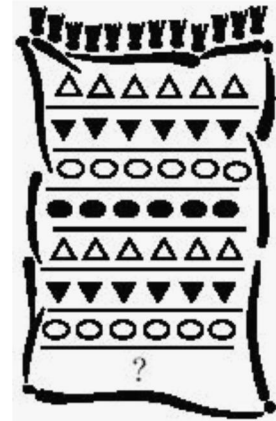
- (A) Large things and small things  
(B) Triangles and squares  
(C) Circles and figures with 4 sides  
(D) Triangles and figures with four sides



11. Jenny is weaving a pattern into a rug.

What would most likely come next?

- (A) ● ● ● ● ● ●  
(B) ○ ○ ○ ○ ○ ○  
(C) △ △ △ △ △ △  
(D) ▼ ▼ ▼ ▼ ▼ ▼



12. Meena made this pattern with balls:



Which of the following uses a rule most different from Meena's pattern?

- (A) (B)   
(C) (D)

13. If Pawan has baseball practice every fourth day in the month of March, starting with March 1, what date will be his last day of practice for the month?

- (A) March 28  
(B) March 29  
(C) March 30  
(D) March 31

MARCH						
S	M	T	W	Th	F	S
					2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

14. The rule for sorting is "has four or more corners." Which group has been sorted correctly?

- (A) (B)   
(C) (D)

15. Third-grade students went to a theatre in 8 buses. Each bus took 45 students. How many students went to the theatre?

- (A) 320 (B) 360 (C) 380 (D) 3240



# International English Olympiad

## WORD AND STRUCTURE KNOWLEDGE

1. Look at the pictures. Find the correct word for the picture.



- (A) Writer                      (B) Dancer                      (C) Singer

2. Find the odd pair.

- (A) Cat : Kitten              (B) Cow : Calf              (C) Pig : Pigeon

3. Complete the sentence with the correct spelling of the word.

The bear went over the \_\_\_\_\_.

- (A) Mountan                      (B) Mountain                      (C) Mountane

4. Complete the word using the letters from the box.

She saw her mother. Her eyes were shining with happ\_\_\_\_\_.

- |           |           |           |
|-----------|-----------|-----------|
| (A) Yness | (B) Iness | (C) Eness |
|-----------|-----------|-----------|

5. Find the odd word.

- (A) Run                      (B) Walk                      (C) Table

6. Fill in the blanks.

There are thirty tables and thirty \_\_\_\_\_ in my classroom.

- (A) Chair                      (B) Chairs                      (C) A chair

7. My teacher's name is Sheela. I like \_\_\_\_\_.

- (A) Her                      (B) Him                      (C) She

8. Given below are three sentences. One of them is incorrect. Find the incorrect sentence and mark it in your answer sheet.

- (A) I go for a walk.                      (B) My father's name are Prasad.  
 (C) My name is Kishan.

## READING

**Direction (Q. No. 9 to 12) : Read the letter and answer the questions.**

### Letter to Rudolf, Santa's Reindeer

Dear Rudolf

My name is Meethu. I am a baby parrot! I live with my friend in the great city of Mumbai in the state of Maharashtra. Of course, that's in India, but I'll bet you knew that! Rudolf, some things that I might like for Christmas this year, two bags full of my favourite seed-mix, lots of green chillies and another

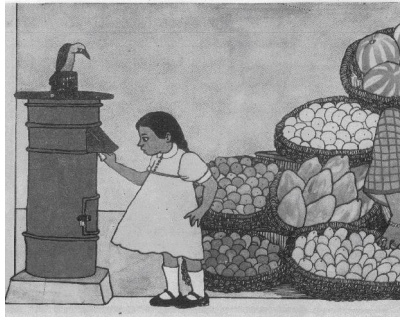
baby parrot to play with. And please don't forget to put in a good word for my friend with Santa! He is very nice. He doesn't keep me in a cage.

Lots of Love

Meethu

Now, choose the correct answer.

9. Meethu lives in  
(A) Hyderabad      (B) Mumbai      (C) A cage
- 
10. Meethu asks for  
(A) Two things      (B) Three things      (C) Five things
- 
11. Meethu asks Rudolf some things for  
(A) Christmas      (B) Holi      (C) Good Friday
- 
12. Why does Meethu like his owner?  
(A) He doesn't give him food.      (B) He puts Meethu in a cage.  
(C) He allows Meethu to fly.
- 
13. Find a sentence matching the picture.



- (A) The girl is posting a letter. A crow is looking at her.  
(B) The girl is looking at the crow. The crow is posting a letter.  
(C) The girl is buying vegetables. There is a post-box.

### SPOKEN AND WRITTEN EXPRESSION

14. Find one sentence to complete the dialogue.  
Geetha: Hello! I am Geetha! What is your name?  
Lina : (A) Hello! I am Lina.  
(B) Hello! I am going home.  
(C) Let us go home.
- 
15. Find one sentence to complete the paragraph.  
Ram didn't want to swim in the sea.  
He sat on the beach and watched Rahul and Mahesh.  
(A) Mummy gave Ram an ice cream but he didn't want it.  
(B) They played in the water.  
(C) But Paul didn't want to.
-

### SAMPLE ANSWER SHEET

**1. NAME :** If your name is SACHIT AIYER, then you should write as follows :

S	A	C	H	I	T	A	I	Y	E	R											
---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--

**2. FATHER'S NAME :** If your father's name is SATISH KUMAR IYER, then you should write as follows :

S	A	T	I	S	H	K	U	M	A	R	I	Y	E	R								
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

SCHOOL CODE					
M	H	0	5	4	7
A	A	●	0	0	0
B	B	1	1	1	1
C	C	2	2	2	2
D	D	3	3	3	3
E	E	4	4	●	4
F	F	5	●	5	5
G	G	6	6	6	6
H	●	7	7	7	●
I	I	8	8	8	8
J	J	9	9	9	9
K	K				
L	L				
●	M				
N	N				
O	O				
P	P				
Q	Q				
R	R				
S	S				
T	T				
U	U				
V	V				
W	W				
X	X				
Y	Y				
Z	Z				

**3. SCHOOL CODE**  
Write your school code  
i.e. if your school code  
is MH0547 darken as  
follows :

Darken  
the circle

**6. GENDER**  
If you are a boy,  
then darken  
Male circle

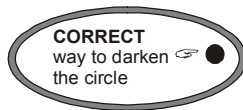
GENDER	
MALE	●
FEMALE	○

**4. CLASS**  
If you are in Class  
10, then you should  
darken as follows :

**5. ROLL NO.**  
If your roll no. is 587,  
then you should write  
and darken the circles  
as follows :

CLASS		ROLL NO.				
1	0	5	8	7		
0	●	0	0	0	0	
1	1	1	1	1	1	
2	2	2	2	2	2	
3	3	3	3	3	3	
4	4	4	4	4	4	
5	5	●	5	5	5	
6	6	6	6	6	6	
7	7	7	7	●	7	
8	8	8	●	8	8	
9	9	9	9	9	9	

Darken  
the circle



7. If your choice for Answer 1 is C, then you should darken the circle as follows :

1. (A) (B) ● (D)

### MARK YOUR ANSWERS WITH HB PENCIL/BALL POINT PEN (BLUE/BLACK)

#### National Cyber Olympiad

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

#### National Science Olympiad

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

#### International Mathematics Olympiad

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

#### International English Olympiad

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

### ANSWERS

National Cyber Olympiad	National Science Olympiad	International Mathematics Olympiad	International English Olympiad
1. (A) 2. (A) 3. (A)	1. (A) 2. (A) 3. (A)	1. (B) 2. (B) 3. (C)	1. (B) 2. (C) 3. (B)
4. (D) 5. (D) 6. (B)	4. (C) 5. (C) 6. (A)	4. (C) 5. (A) 6. (B)	4. (B) 5. (C) 6. (B)
7. (A) 8. (D) 9. (A)	7. (C) 8. (A) 9. (C)	7. (A) 8. (A) 9. (C)	7. (A) 8. (C) 9. (B)
10. (B) 11. (D) 12. (A)	10. (B) 11. (C) 12. (A)	10. (D) 11. (A) 12. (B)	10. (B) 11. (A) 12. (C)
13. (C) 14. (A) 15. (C)	13. (A) 14. (C) 15. (C)	13. (B) 14. (C) 15. (B)	13. (A) 14. (A) 15. (B)