INSTRUCTIONS:

1. Please **DO NOT OPEN** the contest booklet until the Proctor has given permission to start.

2. **Duration: 1 hour and 30 minutes**

3. There are 24 questions in this paper. Each question scores 3 points in Section A, 4 points in Section B and 5 points in Section C. No points are deducted for Unanswered question. 1 point is deducted for Wrong answer.

4. Shade your answers neatly in the answer entry sheet.

5. **PROCTORING:** No help should be given to any student in any way during the contest.

6. **No calculators** are allowed.

7. All students must fill and shade in your **Name, Index number, Level and School** in the Answer sheet provided.

8. Students are not allowed to leave the venue within the first hour of the contest and 15 minutes before the end of the contest.

9. Students must show detailed working and transfer their answers to the answer entry sheet.

10. No spare papers can be used in writing this contest. Enough space is provided for your working of each question.

11. Students are not allowed take any answer script, reference materials and contest paper out of the venue.
Rough Working
Section A  (Correct – 3 points | Unanswered – 0 points | Wrong – deduct 1 point)

Question 1

What do you get when you invert the colours?

(A)  
(B)  
(C)  
(D)  
(E)  

Question 2

Alice draws a figure connecting the ladybirds in the order of increasing number of their dots. She starts with the ladybird with one dot. Which figure will she get?

(A)  
(B)  
(C)  
(D)  
(E)  

Question 3

How many 4-ray stars is needed to be glued on top one another to form the pattern on the right?

4-ray stars:  
Pattern:  
(A) 5  
(B) 6  
(C) 7  
(D) 8  
(E) 9
Question 4
This pizza was divided into equal parts. How many parts have been taken?

(A) 1 (B) 2 (C) 3 (D) 4 (E) 5

Question 5
How many kangaroos must be moved from one park to the other in order to get the same number of kangaroos in both parks?

(A) 4 (B) 5 (C) 6 (D) 8 (E) 9

Question 6
Which of these ladybirds has to fly away so that the rest of them have 20 dots in total?

(A) (B) (C) (D) (E)
**Question 7**
Emilie builds towers in the following pattern:

![Pattern of towers](image)

Which one will be the figure number 16?

![Options A to E](image)

**Question 8**
Little Theodor assembled a stacking toy as shown in the picture below. How many rings will he see looking at it from above?

![Stacking toy](image)

(A) 1  (B) 2  (C) 3  (D) 4  (E) 5
Section B  (Correct – 4 points | Unanswered – 0 points | Wrong – deduct 1 point)

Question 9
Juana, the friendly witch, has 5 broomsticks in her garage. She removes the broomsticks one by one without moving the others. Which broomstick will Juana take at last?

(A) A  (B) B  (C) C  (D) D  (E) E

Question 10
The two transparent squares are placed on top of each other. What can you see?

(A)  (B)  (C)  (D)  (E)

Question 11
Peter drew a pattern twice, as in the picture. Which point will he pass when he draws the same pattern for the third time?

(A) A  (B) B  (C) C  (D) D  (E) E
Question 12
Lisa has 4 pieces, but she only needs 3 out of the 4 to fill the given frame.

Which one will be left over?

(A) A  (B) B  (C) C  (D) D  (E) C or D

Question 13
Diana took part in an archery contest. On her first try, Diana got 6 points with three arrows on the target, as in the left picture. The second time she got 8 points, as in the middle picture. How many points did she get the third time?

(A) 8  (B) 10  (C) 12  (D) 14  (E) 16

Question 14
The dog went to its food following a path, as shown. At the crossroads it had to turn 3 times to the right and 2 times to the left. Which path did the dog take?

(A)  (B)  
(C)  (D)  
(E)  
Question 15
How many of these drawings show the right hand?

(A) 3  (B) 4  (C) 5  (D) 6  (E) 7

Question 16
Charles cuts a rope in three equal pieces and then made some equal knots with them. Which figure shows correctly the three pieces with the knots?

(A)  

(B)  

(C)  

(D)  

(E)  

Section C  (Correct – 5 points | Unanswered – 0 points | Wrong – deduct 1 point)

Question 17
The number of frogs that can fit under a mushroom is equal to the number of dots on the mushroom. The figure below shows one side of each mushroom. The number of dots on the other side is the same. If 30 frogs are seeking shelter from the rain, how many frogs will get wet?

(A) 2  (B) 3  (C) 4  (D) 5  (E) 6
Question 18
1 ice-cream costs 1 dollar. There is a promotion so you can buy 6 ice-creams for 5 dollars. What is the most number of ice-creams that can be bought with 36 dollars?

\[ \text{(A) 36} \quad \text{(B) 30} \quad \text{(C) 42} \quad \text{(D) 43} \quad \text{(E) 45} \]

Question 19
How many different numbers greater than 10 and smaller than 25 with different digits can we make by using two of the digits 2, 0, 1, and 8?

\[ \text{(A) 4} \quad \text{(B) 5} \quad \text{(C) 6} \quad \text{(D) 7} \quad \text{(E) 8} \]

Question 20
A pirate has two chests. There are 10 coins in the left chest and the other is empty. Everyday, the pirate will put 1 coin in the left chest and 2 coins in the other one every day. In how many days will the two chests have the same number of coins?

\[ \text{(A) 5} \quad \text{(B) 8} \quad \text{(C) 10} \quad \text{(D) 12} \quad \text{(E) never} \]

Question 21
Alice has 3 white, 2 black and 2 grey pieces of paper. She cuts every non-black piece of paper in half. Then she cuts every non-white piece of paper in half. How many pieces of paper will she have?

\[ \text{(A) 14} \quad \text{(B) 16} \quad \text{(C) 17} \quad \text{(D) 18} \quad \text{(E) 20} \]
Question 22
A student had some sticks of length 5 cm and width 1 cm. With the sticks he constructed the fence below. What is the length of the fence?

(A) 20 cm   (B) 21 cm   (C) 22 cm   (D) 23 cm   (E) 25 cm

Question 23
The road from Anna’s to Mary’s house is 16 km long. The road from Mary’s to John’s house is 20 km long and the road from the crossroad to Mary’s house is 9 km long. How long is the road from Anna’s house to John’s house?

(A) 7 km   (B) 9 km   (C) 11 km   (D) 16 km   (E) 18 km

Question 24
Nelly bought 4 toys from the toystore. Their costs satisfy the three equations below.

What are the cheapest and the most expensive toys?

(A)   (B)   (C)   (D)   (E)
Rough Working
Rough Working