CREST Mental Maths Olympiad (CMMO)
Sample Paper

Pattern and Marking Scheme				
Grade	**Topic/Section**	**No. of Questions**	**Marks per Question**	**Total Marks**
Grade KG	Basique	20	1	20
	Avance	5	2	10
Grand Total		**25**		**30**

The total duration of the exam is 45 minutes.

Syllabus

1. **Number Magic and Counting Quest**
   a. **Counting Champions:** Count objects mentally up to 10 and identify the exact number.
   b. **Number Neighbours:** Identify the number that comes before, after, or between given numbers within 10.
   c. **Zero Zone:** Understand zero as "none" or "nothing" through practical examples.

2. **Addition Adventures**
   a. **Quick Adds:** Mentally add two single-digit numbers with a sum up to 10
   b. **Picture Play Addition:** Use picture-based problems (like apples or stars) to add two numbers.
   c. **Missing Addend Challenge:** Identify the missing number in an addition equation (e.g., 5 + __ = 7).

3. **Subtraction Secrets**
   a. **Simple Subtracts:** Mentally subtract one single-digit number from another, ensuring the difference is zero or greater.
   b. **Picture Puzzle Subtraction:** Use picture-based problems to subtract and understand the concept of "taking away."
   c. **Find the Missing Number:** Complete subtraction equations with missing values (e.g., __ – 2 = 3).

4. **Pattern Play and Number Trails**
   a. **Number Patterns:** Recognise and continue simple number patterns (e.g., 1, 2, 3, __, 5).
   b. **Counting Champs:** Complete number sequences with increments of 1, exploring forward and backward counting.

    c. **Skip Counting Stars:** Skip counting by 2s and 5s up to 20
    d. **Repeating Patterns:** Identify patterns that repeat (e.g., red, blue, red, blue).

5. **Number Showdown**
    a. **Compare It Right:** Mentally compare two numbers and identify which is greater, smaller, or if they are equal.
    b. **Order Out:** Arrange three numbers in order from smallest to largest with visual support.
    c. **Number Signs:** Use the symbols '>', '<', and '=' to compare numbers accurately.

6. **Number Bonds and Relationships**
    a. **Magic Pairs:** Understand number bonds that make 5 and 10, using pairs of numbers.
    b. **Complete the Total:** Solve simple mental problems related to number bonds (e.g., what number added to 4 makes 10?).
    c. **Pairs to Perfection:** Use pairs of numbers to complete a given total, building a strong foundation in number relationships.

7. **Time Travelers**
    a. **Day Detectives:** Sequence the days of the week in the correct order from Monday to Sunday.
    b. **Before and After Challenge:** Identify the day or month that comes before or after a given one.
    c. **Counting Days Quest:** Count days forward or backward from any given day to master basic time skills.

8. **Shape Safari**
    a. **Shape Spotters:** Recognise basic 2D and 3D shapes like square, rectangle, triangle, circle, oval, sphere, cone, cube, cylinder
    b. **Shape Matching:** Match shapes to everyday objects (e.g., a ball is a circle).

For more details, visit https://www.crestolympiads.com/mental-maths-mmo

Basique (Each Question is 1 Mark)

1. Count the apples and add them together.

   a. 5   b. 6

2. Add:

   a. 3   b. 2
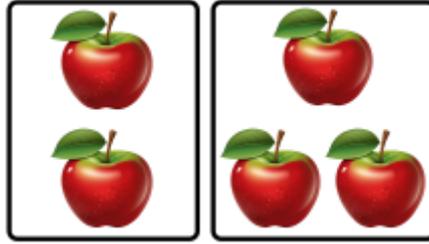
3. Duck has 6 friends. How many more to make 10 ducks?

   a. 4   b. 3

4. Fill in the blank:

$$0 + \underline{\quad} = 5$$

a. 4

b. 5

5. Find the another pair for 3:

2 and ?

a. 1

b. 2

6. Count the apples on the tree.

a. 6

b. 5

7. Which number comes before 9?

a. 8

b. 10

8. Which has fewer stars?

a. 6

b. 3
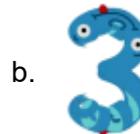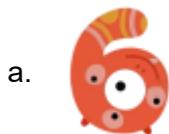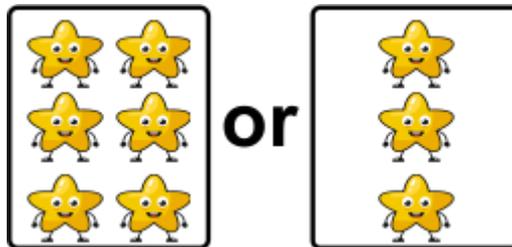
9. Are 5 cubes the same as 6 cubes?
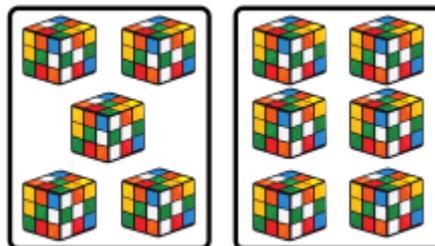
a. Yes

b. No

10. Choose the right sign:

a. <

b. >

11. Continue the count:

3 4 ?

a. 5

b. 6

12. Recognise the pattern:

5 6 ? 8 9

a. 10

b. 7

13. Fill in the blank:

2 4 6 ___ 10

a. 8

b. 9

14. Match the shape of an ice cream cone.

a. Sphere

b. Cone

15. What shape is this coin?

a. **Circle**

b. **Square**

16. Subtract:

a. **5**

b. **4**

17. What is 5 - 3?

a. **2**

b. **4**
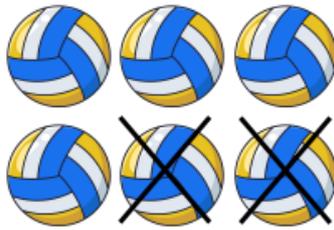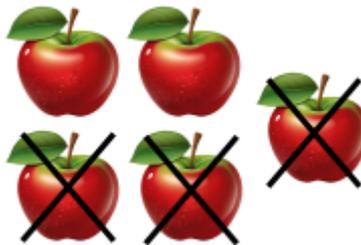
18. What month comes after November?

a. **October**

b. **December**

19. If today is Saturday, what day will it be after 2 days?

a. **Monday**

b. **Tuesday**

20. Which day comes after Tuesday?

a. **Wednesday**

b. **Monday**

Avance (Each Question is 2 Marks)

21. Find the missing number:

0 + ___ = 3

a. 2

b. 3

22. What comes after 0?

0

a. 1

b. 2

23. Arrange the following from smallest to greatest:

7 6 8

a. 8 7 6

b. 6 7 8

24. Fill in the blank:

a.

b.
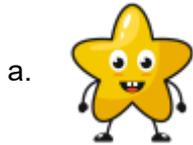
25. Find the missing number:

a.

b.

Answer Key

1. a	2. b	3. a	4. b	5. a	6. b	7. a	8. b	9. b	10. a
11. a	12. b	13. a	14. b	15. a	16. b	17. a	18. b	19. a	20. a
21. b	22. a	23. b	24. a	25. b					