olympiads

Syllabus for CRO is available at https://www.crestolympiads.com/cro-syllabus

| Pattern and Marking Scheme |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Class | Topic/Section | No. of <br> Questions | Marks per Questions | Total Marks |
|  | Logical Reasoning | 25 | 1 | 25 |
| $1^{\text {st }}$ to $4^{\text {th }}$ | Achiever's Section | 10 | 2 | 20 |
|  | Grand Total | $\mathbf{3 5}$ | - | $\mathbf{4 5}$ |
|  | Logical Reasoning | 40 | 1 | 40 |
| $5^{\text {th }}$ to $10^{\text {th }}$ | Achiever's Section | 10 | 2 | 20 |
|  | Grand Total | $\mathbf{5 0}$ | - | $\mathbf{6 0}$ |

1. In the following question, there is certain relationship between the two given numbers on one side of $(::)$ and one number is given on another side of $(::)$ where another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear. Choose the best alternatives.

$$
583: 488: \text { : } 293: ?
$$

(a) 581
(b) 291
(c) 378
(d) 487
2. In this question, relationship between different elements is shown in the statements.

The statements are followed by two conclusions.
Statements $P>M>Q, Q>Z>N$
Conclusions I. $\mathrm{M} \geq \mathrm{Z}$ II. $\mathrm{N}<\mathrm{P}$
(a) if only Conclusion I follow
(b) if only Conclusion II follows
(c) if both Conclusions I or II follows
(d) if neither Conclusion I nor II follows

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3. In the following question, find the figure out of the answer choices figures that can be formed by joining the pieces given in the question figure.

(a)

(b)

(c)

(d)

4. How many squares are there in the following figure?

(a) 5
(b) 9
(c) 7
(d) 8

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5. In the following question, choose the correct mirror image from the alternatives, when mirror is placed on the line $A B$.

6. In the question given below, there are two Statements $A$ and $B$. These statements may be either independent causes or may be effects of independent causes or of a common cause. One of these statements may be the effect of the other statement. Read both the statements and decide which of the following answer choices correctly depicts the relationship between these two statements.
A. Most of the shopkeepers in the locality closed their shops for the second continuous day.
B. Two groups of people living in the locality have been fighting with each other with bricks and stones, forcing people to stay indoors.
(a) if Statement $A$ is the cause and Statement $B$ is its effect
(b) if Statement B is the cause and Statement $A$ is its effect
(c) if both statements are independent causes
(d) if both statements are effects of independent causes

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7. From the given suitable options, find the water image of the object given in the question figure.

(a)

(b)

(c)

(d)

8. Read the following information carefully and answer the questions given below. A cube is painted red on two adjacent surfaces and black on the surfaces opposite to red surfaces and green on the remaining faces. Now, the cube is cut into 64 smaller cubes of equal size.
How many smaller cubes have less than three surfaces painted?
(a) 8
(b) 24
(c) 28
(d) 48

## Achiever's Section

9. Read the following information carefully and then answer the question based on them. In a cycling race, five participants from various nations- Chinese, Nepalese, Indians, Iraqi and English take part. Track 1 is extreme left and track 5 is extreme right. The following conditions exist.
I. The Nepalese and English are not cycling adjacent to each other.
II. The Iraqi is not in any of the extreme tracks.
III. The Chinese is to the left of the Indians.

If the Nepalese is in the track 4 and the Indians is in track 3, then the English could be in
(a) track 1
(b) track 2
(c) track 1 and 2
(d) None of these
10. In the question given below, there are four statements followed by two conclusions numbered I and II.
You have to take the four given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions, logically follows from the four statements disregarding commonly known facts.

Statements- All pictures are paintings.
All paintings are photographs.
Some photographs are designs.
Some designs are movies.
Conclusions
I. Some paintings are designs.
II. Some photographs are movies.
(a) if only Conclusion I follows
(b) if only Conclusion II follows
(c) if either Conclusion I and II follows
(d) if neither Conclusion I nor II follows

## Answers

1. (c), 2. (b), 3. (d), 4. (b), 5. (d), 6. (a), 7.(a), 8.(d), 9. (d), 10. (d)
