



## CREST Reasoning Olympiad (CRO)

# Sample Paper

## Pattern and Marking Scheme

Grade	Topic/Section	No. of Questions	Marks per Question	Total Marks
Grade 6	Logical Reasoning	40	1	40
	Achiever's Section	10	2	20
<b>Grand Total</b>		<b>50</b>		<b>60</b>

The total duration of the exam is 60 minutes.

## Syllabus

**Section 1:** Series Completion and Inserting the Missing Character, Analogy and Classification, Blood Relations, Coding - Decoding, Direction Sense Test, Logical Venn Diagram, Alpha Numeric Sequence Puzzle, Number, Ranking and Time Sequence Test, Logical Sequence of Words, Alphabet Test, Mathematical Operations, Analytical Reasoning, Mirror Images and Water Images, Embedded Figures, Figure Formation, Construction of Squares, Grouping of Identical Figures, Figure Matrix, Paper Folding and Paper Cutting, Cubes and Dice, Dot Situations.

**Achievers Section:** Higher Order Thinking Questions - Syllabus as per Section 1

For more details, visit <https://www.crestolympiads.com/reasoning-olympiad-cro>

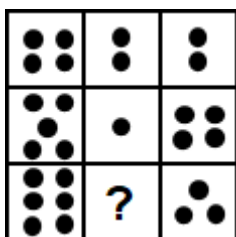
## Logical Reasoning (Each Question is 1 Mark)

1. Select the related word from the given alternatives:

Pollution : Mask :: Rain : ?

- a. Flood
- b. Clean
- c. Umbrella
- d. Acid

2. Select a suitable figure from the four alternatives that would complete the given figure matrix.



3. If in a certain code language, 'CROWNED' is written as 'PSDVEFO', then how will 'STREAMS' be written in that language?

- a. SUTDBNT
- b. TUSDTNB
- c. SUTDTNB
- d. QSRDTNB

4. In the given series, which set of letters, when sequentially placed at the gaps in the same order, shall form a repetitive pattern?

Y\_XY YY\_YY\_XY

- a. XXY
- b. YXY
- c. XYX
- d. YYX

5. Select the related word from the given alternatives:

Architect : Design :: Author : ?

- a. Pen
- b. Paper
- c. Book
- d. English

6. Insert the missing number in the following series:

16, 20, 18, 22, ?, 24

- a. 20
- b. 23
- c. 26
- d. 28

7. Select the related letters from the given alternatives:

GK : EI :: LQ : ?

- a. JO
- b. KP
- c. JP
- d. MR

8. Point D is towards the south of point C. Point B is to the east of point C. Point A is to the south of point B. Then in which direction is point D with respect to point A?

- a. South-West
- b. South-East
- c. North-West
- d. Cannot be determined

9. If all the number in the below arrangement is dropped, which of the following element will be the ninth from the left end?

% K 6 J U 5 % Y © 3 T R 7 S A € 7 E G 8 U & 3 M # N 5 @ P 3 A 3 2 L

- a. ©
- b. T
- c. S
- d. R

10. Sam said to Kate, "Your mother's husband's brother is my uncle." How is Kate related to Sam's father?

- a. Brother
- b. Sister
- c. Mother
- d. Cannot be determined

11. In the following series, replace the question mark (?) with a suitable option.  
27, 32, 30, 35, 33, ?

- a. 28
- b. 31
- c. 36
- d. 38

12. In a certain code language, "PILLOW" is written as "WOLLIP", "CHAIR" is written as "RIAHC". Then "TABLE" will be written as:

- a. ELBAT
- b. ELTAB
- c. BATLE
- d. ABTLE

13. How many meaningful words of three letters can be formed by using the fifth, seventh and last letter of the word "MISFORTUNE", using each letter only once?

- a. One
- b. Two
- c. Three
- d. None

14. Select the figure which satisfies the same conditions of placement of the dots as in the figure (i).



Fig (i)



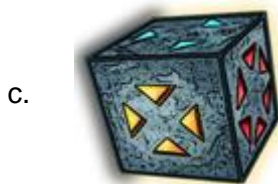
15. How many such pairs of letters are there in the word “GEOGRAPHY” which has as many letters between them as there are in the English alphabetical series?

- a. One  
b. Three  
c. Two  
d. More than three

16. In a certain code language, “x” means subtraction, “+” means division, “-“ means multiplication and “÷” means addition. Then according to the same language  $20 \div 2 \times 14 + 4 - 2 = ?$

- a. 10  
b. 15  
c. 20  
d. 29

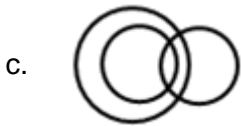
17. Which of the following will be the correct mirror image of the given figure, when the mirror is placed vertically to the right?



18. Which of the following Venn diagram best represents the relationship among the given classes?

Educated, employed, illiterate





19. In the given series, which set of letters, when sequentially placed at the gaps in the same order, shall form a repetitive pattern?

T \_ \_ T M O \_ M O

- a. TMO
- b. TOM
- c. OTM
- d. MOT

20. Select the related number from the given alternatives:

56 : 112 :: 99 : ?

- a. 198
- b. 199
- c. 196
- d. 188

21. In a certain code, 'DEGRADE' is written as '7326573', 'NOTE' is written as '4983', then 'TREND' will be written as:

- a. 83567
- b. 86347
- c. 23567
- d. 86357

22. Select the related word from the given alternatives:

Milk : Booth :: Petrol : ?

- a. Station
- b. Gas
- c. Pump
- d. Fuel Tank

23. Here two words are given which are related to each other in a particular manner and you have to find the word from the given alternatives which has the exact same relationship to the third word, as the first two.

'Flower' is related to 'Petal' in the same way 'Book' is related to \_\_\_\_\_.

- a. Page
- b. Content
- c. Author
- d. Library

24. Select the letter pair that has the same relationship as the original pair of words.

Hospital : Doctor

- a. Army : Soldier
- b. School : Teacher
- c. Lawyer : Court
- d. College : Student

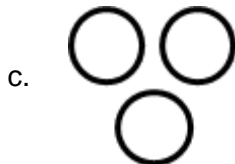
25. Three words are given in the question, which have something in common among themselves. Choose the one with the quality common to the given three words.

Pen : Pencil : Eraser

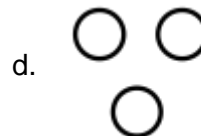
- a. Education
- b. Gardening

- c. Teaching
- d. Stationary
- 26.** Three words are given in the question, which have something in common among themselves. Choose the one with the quality common to the given three words.  
Kyat : Yuan : Baht
- a. Currency
- b. Cities
- c. Monuments
- d. Parliament
- 27.** If the 2<sup>nd</sup> half of the English alphabet is written in backward order, then which letter comes 5<sup>th</sup> to the left of the 20<sup>th</sup> letter from left?
- a. J
- b. H
- c. Y
- d. Z
- 28.** How many meaningful English words can be formed with the letters LEGU, using each letter only once in each word?
- a. None
- b. One
- c. Two
- d. Three
- 29.** How many 7's are there in the given series which are immediately preceded by 6 but not immediately followed by 8?  
3 4 8 7 6 1 5 6 7 8 4 9 6 7 5
- a. 1
- b. 2
- c. 3
- d. 4
- 30.** If in a certain code language 'nik ka pa' means 'who are you', 'ka na ta da' means 'you may come here' and 'ho ta sa' means 'come and go', then what does 'nik' mean in that language?
- a. who
- b. are
- c. 'who' or 'are'
- d. Data inadequate
- 31.** If A means '+', B means '-', C means 'x' and D means '÷' then 18 C 14 A 6 B 16 D 4 =?
- a. 188
- b. 238
- c. 254
- d. 288
- 32.** In the following question, one number is wrong in the series. Find out the number.  
4, 5, 7, 10, 14, 18, 25, 32
- a. 7
- b. 14
- c. 18
- d. 32
- 33.** In a certain code language, 'SOCIAL' is written as 'TQFMFR', then how will 'DIMPLE' be written in that language?
- a. EKPTQK
- b. EKPQPJ
- c. EKPSPJ
- d. EKPSOH

34. The question given below contains three groups of items. You are required to choose one of the four numbered diagrams (a), (b), (c) and (d) that depicts the correct relationship among the three groups of items in the given question:  
Book, Pen, Pencil



35. The question given below contains three items. These items may or may not have some relation with one another. Each group of the items may fit into one of the options. Indicate the option in which these group of items correctly fits into  
Copy, Stationery, Car



36. B is the father of Q, B has only two children. Q is the brother of R. R is the daughter of P. A is the granddaughter of P and S is the father of A. How is S related to Q?

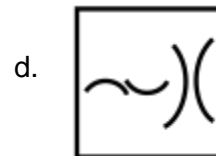
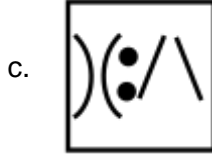
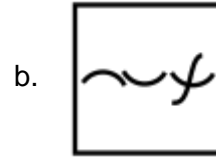
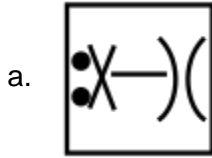
- a. Son  
b. Son-in-law  
c. Brother  
d. Brother-in-law

37. Sara is the wife of Harry. George and Peter are brothers. George is the brother of Harry. How is Peter related to Sara?

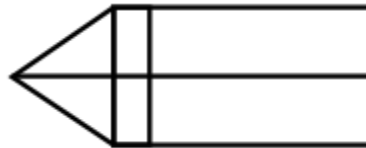
- a. Cousin  
b. Brother  
c. Brother-in-law  
d. Uncle

38. In each of following question, find the figure given in the answer choices, that can form the question figure.





39. How many rectangles are there in the figure given below?



- a. 7  
c. 9

- b. 8  
d. 12

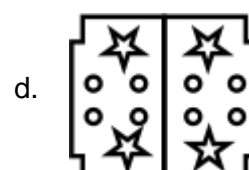
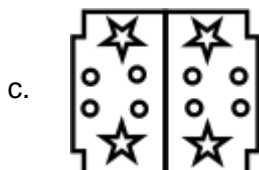
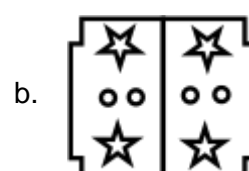
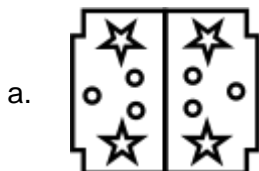
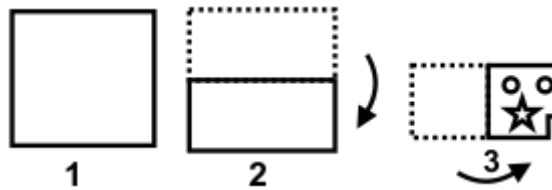
40. A solid cube is divided into 27 smaller cubes of equal volume. If two opposite faces of this bigger cube are painted with different colours and remaining faces are left unpainted, then how many smaller cubes are obtained which have no faces painted?

- a. 1  
c. 27

- b. 9  
d. 36

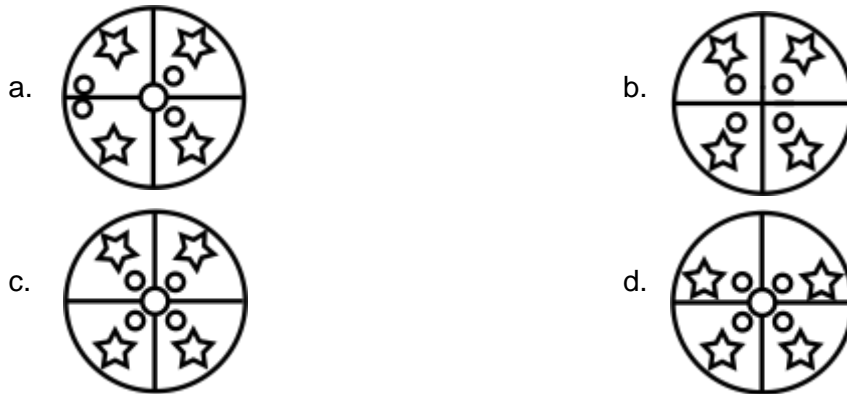
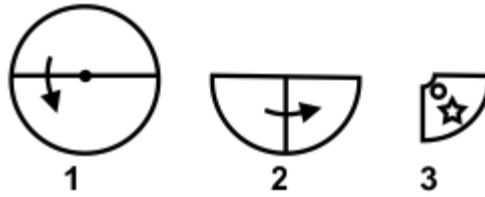
### Achiever's Section (Each Question is 2 Marks)

41. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.





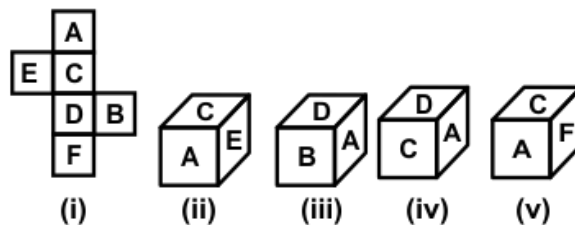
42. A piece of paper is folded and cut as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



43. Point J is 3 m to the North of point K. Point I is 5 m to the South-East of point J. Point K is to the West of point I. Point G is to the North of the point I and to the East of point J. Then what is the shortest distance between point K and G?

- a. 4 m  
b. 8 m  
c. 5 m  
d. Cannot be determined

44. Choose the box that will be formed by folding the sheet of paper given in figure(i).



- a. Only (iii) and (iv)  
b. Only (iv) and (v)  
c. Only (v)  
d. Only (ii)

45. In this question, relationship between different elements is shown in the statements. The statements are followed by two conclusions.

Statement:  $H \geq I = J > K \leq L$

Conclusions: (i)  $K < H$  (ii)  $L \geq I$

- a. Only conclusion (i) is true  
b. Only conclusion (ii) is true  
c. Either conclusion (i) or (ii) is true  
d. Neither conclusion (i) nor (ii) is true

46. There is a certain relationship between the pair of words given on either side of (::); identify the relationship of the given pair and find the matching term:

EGIK : LJHF :: SUWY : ?

- a. ZXVT
- b. TVXZ
- c. LNPR
- d. MOQS

47. Find the odd one out of the options given below:

- a. ACDE
- b. FHIJ
- c. KMNO
- d. PQRS

48. How many such letters are there in the word 'CATEGORY' each of which is as far away from the beginning of the words when they are arranged in alphabetical order?

- a. One
- b. Two
- c. Three
- d. None

49. How many meaningful English words can be formed from the letters ADRW, using each letter only once in each word?

- a. One
- b. Two
- c. Three
- d. None

50. Examine carefully the following statements and answer the three items that follow:

Out of four friends, Arthur, Bob, Jack and David

1. Arthur and Bob play football and cricket.
2. Bob and Jack play cricket and hockey.
3. Arthur and David play basketball and football.
4. Jack and David play hockey and basketball.

Who plays football, basketball and hockey?

- a. David
- b. Jack
- c. Bob
- d. Arthur

## Answer Key

1.	c	2.	a	3.	c	4.	b	5.	c	6.	a	7.	a
8.	d	9.	d	10.	d	11.	d	12.	a	13.	a	14.	b
15.	a	16.	b	17.	a	18.	d	19.	d	20.	a	21.	b
22.	c	23.	a	24.	b	25.	d	26.	a	27.	c	28.	b
29.	a	30.	c	31.	c	32.	c	33.	a	34.	c	35.	a
36.	d	37.	c	38.	c	39.	c	40.	b	41.	c	42.	c
43.	c	44.	d	45.	a	46.	a	47.	d	48.	a	49.	b
50.	a												