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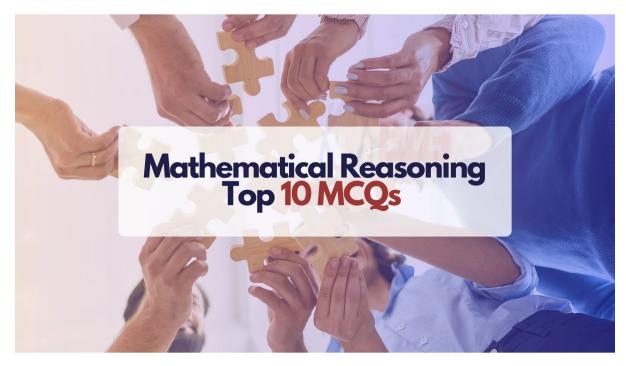
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Mathematical Reasoning Questions - Top 10 MCQs with Solutions

Mathematical Reasoning is an important topic of Logical Reasoning with a great presence in SSC exams, having a weightage of 2 - 5 questions. To master Mathematical Reasoning questions, a solid grasp of the concepts and rigorous practice are essential.

In this blog, we'll comprehensively explore the foundations and logical nuances of Mathematical Reasoning. We've included 10 real SSC exam-level questions to give you a preview of the challenges you'll face. Practice questions are categorized into different difficulty levels, ranging from 1 to 10. 1 denotes the least difficult and 10 denotes the most difficult. We have also given an estimated expected time to solve each question, to boost your preparation and speed. Moreover, you can also download Mathematical Reasoning questions and answers PDF by clicking on 'Download PDF' button above.

Mathematical Reasoning Questions

Q:1 What will be the value of the expression if the numbers/digits '(6)' and '(12)' are interchanged?

$164 \div 4 \times 36 \div 12 \times 5 + 6 + 9$

1. 1521

2. 1251

3. 1125

4. 1152

[*Difficulty:* 4, *Estimated Time:* 10 seconds]

This question was simple one, wasn't it?

Q:2 Which two numbers, from amongst the given options, should be interchanged to make the given equation correct?

14 + 39 - ($\sqrt{256} \div 3$) + (5 × 4) - 6 = 58

1. 4 and 3

2. 5 and 4

3. 6 and 14

4. 3 and 39

[*Difficulty:* 3, *Estimated Time:* 10 seconds]

Be careful while calculating.

Q:3 Select the correct combination of mathematical signs to sequentially replace the * signs and balance the given equation.

12 * 16 * 4 * 2 * 9 = 55

1. ×, ÷, -, +

2. ÷, ×, -, +

3. ÷, +, -, ×

4. ×, ÷, +, -

[*Difficulty:* 4, *Estimated Time:* 13 seconds]

Come on, time is runnning.

Q:4 If P means '+', Q means '-', R means '×' and S means '÷', then the value of the following expression?

40 S 4 R 2 P 19 Q 26

1. 21

2. 16

3. 23

4. 13

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[*Difficulty:* 3, *Estimated Time:* 10 seconds]

Are you comfortable with this problem?

Q:5 If **K** denotes '**+**', **Q** denotes '**-**' **R** denotes '**×**' and **S** denotes '**÷**' then, which of the following equation is correct?

1. 7 R 8 K 9 S 3 Q 10 = 49

2. 32 S 8 R 9 = 160 Q 12 R 12

3. 16 R 12 K 49 S 7 Q 9 = 200

4. 36 R 4 S 8 Q 7 K 4 = 10

[*Difficulty:* 4, *Estimated Time:* 10 seconds]

You are going good, crack this one also.

Q:6 If '+' means 'division', '×' means 'minus', "÷' means 'plus' and '-' means 'multiplied by', then which of the following will be the value of the expression

99 ÷ 24 × 59 × 42 + 3 + 7 = ?

1. 42

2. 32

3. 22

4. 62

[*Difficulty:* 2, *Estimated Time:* 8 seconds]

This question is too easy but be careful with calculations.

Q:7 If '+' means '×' and '÷ 'means '-' then what is the value of 82÷12+2×20-5?

1. 92

2. 112

3. -403

4. -115

[*Difficulty:* 4, *Estimated Time:* 10 seconds]

Think of BODMAS rule.

Q:8 Fill in the correct signs in the equation.

50 * 14 * 7 * 2 * 4 = 58

1. ÷, ×, -, +

2. ÷, ×, +, -

3. ×, ÷, ×, +

4. +, ÷, ×, +

[*Difficulty:* 2, *Estimated Time:* 10 seconds]

Only few questions to go, don't loose your concentration.

Q:9 Which two numbers (NOT digits) should be interchanged to make the following equation correct?

28 ÷ 7 + 14 × 6 − 2 = 168

1. 7 and 13

2. 14 and 28

3. 6 and 2

4. 12 and 8

[*Difficulty:* 4, *Estimated Time:* 10 seconds]

Okay, now you are one step up the ladder in this topic.

Q:10 To correct the given equation, which two symbols have to be interchanged?

9 + 8 ÷ 4 × 15 - 6 = 5.13

1. − and +

2. + and ×

3. ÷ and +

4. ÷ and ×

[*Difficulty:* 4, *Estimated Time:* 10 seconds]

You have done it, you are now master in this topic.

We've explored various aspects of the same topic together. If you found it easy, that's fantastic! But if you faced challenges, don't worry—detailed solutions are here to clear any doubts and enhance your grasp of the topic.

Answer Key of Mathematical Reasoning

1. (2)	**2.** (1)	**3.** (1)	**4.** (4)	**5.** (1)
6. (4)	**7.** (3)	**8.** (4)	**9.** (2)	**10.** (4)

We've explored various aspects of the same topic together. Let's assess your progress. If you achieved a perfect score of 10, congratulations! For those scoring below 5, there's room for more learning. If you landed in the 6-7 range, let's review the incorrect answers. Scoring 8-9 means you're doing well; a bit more attention will help you reach excellence.

Solutions of Mathematical Reasoning

Q:1 The correct answer is **Option 2** i.e. **1251**

Given expression: 164 ÷ 4 × 36 ÷ 12 × 5 + 6 + 9

After interchanging numbers/digits, we get:

164 ÷ 4 × 36 ÷ 6 × 5 + 12 + 9

By using the rule of **BODMAS**, we get:

= (41 × 6 × 5 + 12 + 9)

= (1230 + 12 + 9)

= 1251

Hence, **1251** is the correct answer.

Q:2 The correct answer is **Option 1** i.e. **4 and 3**

Given equation : 14 + 39 - ($\sqrt{256}$ ÷ 3) + (5 × 4) - 6 = 58

From option 1,

14 + 39 - ($\sqrt{256}$ ÷ 4) + (5 × 3) - 6 = 14 + 39 - 4 + 15 - 6 = 58

Hence, the correct answer is **4 and 3.**

Q:3 The correct answer is **Option 1** i.e. **×, ÷, -, +**

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Given equation : 12 * 16 * 4 * 2 * 9 = 55

From option 1,

12 × 16 ÷ 4 - 2 + 9 = 48 - 2 + 9 = 55

Hence, the correct answer is **×, ÷, -, +.**

Q:4 The correct answer is **Option 4** i.e. **13**

Given the equation: 40 S 4 R 2 P 19 Q 26

After the interchange of signs: (Using BODMAS)

= 40 ÷ 4 × 2 + 19 - 26

= 10 × 2 + 19 - 26

= 20 + 19 - 26

= 13

Hence, the correct answer is **13.**

Q:5 The correct answer is **Option 1** i.e. **7 R 8 K 9 S 3 Q 10 = 49.**

Given the equation: 7 R 8 K 9 S 3 Q 10 = 49

Checking all the options one by one:

1. 7 R 8 K 9 S 3 Q 10 = 49

7 × 8 + 9 ÷ 3 - 10

56 + 3 - 10

59 - 10

49

49 is equal to 49.

The equation is balanced. No need to check other options.

Hence, **7 R 8 K 9 S 3 Q 10 = 49** is the correct answer.

Q:6 The correct answer is **Option 4** i.e. **62.**

Given the equation: 99 ÷ 24 × 59 × 42 + 3 + 7 = ?

If '+' means 'division', '×' means 'minus', "÷' means 'plus' and '-' means 'multiplied

99 ÷ 24 × 59 × 42 + 3 + 7 = ?

= 99 + 24 - 59 - 42 ÷ 3 ÷ 7

= 99 + 24 - 59 - 2

= 62

Hence, **62** is the correct answer.

Q:7 The correct answer is **Option 3** i.e **-403**

Given: 82÷12+2×20-5

'+' means '×' and '÷ 'means '-'

After interchanging signs

82 - 12 × 2 × 20 - 5

82 - 480 - 5

82 - 485

= -403

Hence, the correct answer is **-403**.

Q:8 The correct answer is **Option 4** i.e **+, ÷, ×, +**

Given: 50 * 14 * 7 * 2 * 4 = 58

Option 4-

50 * 14 * 7 * 2 * 4 = 58

50 + 14 ÷ 7 × 2 +4

$50 + 2 \times 2 + 4$

$50 + 4 + 4$

58

This option is the correct answer.

Hence, the correct answer is '**+, ÷, ×, +**'.

Q:9 The correct answer is **Option 2** i.e. **14 and 28.**

Given equation: $28 ÷ 7 + 14 × 6 − 2 = 168$

Checking all the options one by one:

1. 6 and 2

$28 ÷ 7 + 14 × 2 − 6 = 168$

$4 + 14 × 2 − 6 = 168$

$26 ≠ 168$

26 is not equal to 168.

2. 14 and 28

$14 ÷ 7 + 28 × 6 − 2 = 168$

$2 + 168 - 2 = 168$

168 is equal to 168.

The equation is balanced. No need to check other options.

Hence, **14 and 28** is the correct answer.

Q:10 The correct answer is **Option 4** i.e. **÷ and ×.**

Given equation is: $9 + 8 ÷ 4 × 15 - 6 = 5.13$

If '÷' and '×' are interchanged the equation becomes:
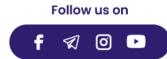
$9 + 8 × 4 ÷ 15 - 6$

= 9 + 2.13 - 6

= **5.13**

Hence, **÷ and ×** is the correct answer.

Congratulations on completing 10 Mathematical Reasoning questions of varying difficulty levels. Your dedication to practice is commendable and will undoubtedly enhance your Logical Reasoning skills. Comment your thoughts below and let us know how was your experience practicing these specially curated questions for you. If you have any doubts, you can ask in the comment section and we'll be right there with answers in no time. Keep up the great work, and you'll be well-prepared to tackle similar challenges in the SSC exams. KD Live will be here with with top 10 questions from different topics, on a daily basis. Stay tuned!