

RBI Assistant Mock Test 4

Q 1. A dishonest shopkeeper uses a 900 gm. weight instead of 1.3 kg weight. Find his profit percent if he sells per kilogram at the same price as he buys a kilogram.

1. 45.45%
2. 35.34%
3. 44.44%
4. 40%

Q 2. A reduction in the price of petrol by 10% enables a motorist to buy 5 litres more for Rs 2700. Find the original price of petrol?

1. Rs 75
2. Rs 60
3. Rs 100
4. Rs 150

Q 3. The ratio of A's salary to B's salary is 2:3. The ratio of B's salary to C's salary is 4:5. What is the ratio of A's salary to C's salary? And if A's salary is given as Rs 16000 find C's salary.

1. 8:12:15 ; Rs 30000
2. 9:15:12 ; Rs 30000
3. 8:12:15 ; Rs 13500
4. 8:15:12 ; Rs 35000

Q 4. The duration of the railway journey varies as the distance and inversely as the velocity; the velocity varies directly as the square root of the quantity of coal used, and inversely as the number of carriages in the train. In a journey of 50 km in half an hour with 24 carriages, 10000 kg of coal is required. How much coal will be consumed in a journey of 60 km in 120 min with 20 carriages?

1. 2000
2. 3000
3. 4500
4. 2500

Q 5. A contractor undertakes to build a wall in 100 days. He employs 50 people for the same. However, after 50 days he finds that the work is only 40% complete. How many more men need to be employed?

1. 25
2. 35

3. 45
4. 50

Q 6. A can do a work in 10 days and B can do the same work in 20 days. They work together for 5 days and then A goes away. In how many more days will B finish the work?

1. 10
2. 6
3. 7
4. 5

Q 7. The outer circumference of a circular track is 440 m. The track is 14 m wide everywhere, calculate the cost of levelling the track at the rate of 25 paise per square metre. The area that needs levelling can be found out deducting the area of a smaller circle from the area of larger circle.

1. Rs 1346
2. Rs 1536
3. Rs 1386
4. Rs 1500

Q 8. A copper wire when bent in the form of a square encloses an area of 1936 cm^2 . Now if the same wire is bent to form a circle, the area enclosed by it would be

1. 2464
2. 3478
3. 9034
4. 1200

Q 9. Find the next missing number in the series.

12, 26, 50, 86, 136, ?

1. 204
2. 202
3. 310
4. 400

Q 10. Find the next missing number in the series.

20, 33, 58, 99, 160, ?

1. 345

2. 355
3. 245
4. 425

Q 11. Find the next missing number in the series.

50, 58, 85, 149, 274, ?

1. 590
2. 905
3. 500
4. 490

Q 12. If '+' means minus, '×' means divided by, '÷' means plus, and '-' means multiplied by then which of the following will be the value of the expression

$250 \times 50 - 25 + 15 \div 5$

1. 70
2. 65
3. 55
4. 20

Q 13. If '+' means '×', '×' means '-', '÷' means plus, and '-' means '÷' by then which of the following will be the value of the expression

$96 - 12 \div 40 + 3 \times 40$

1. 88
2. 108
3. 98
4. 104

Directions (14-18) Study the given information carefully to answer the given question:

P, Q, R, S, T, U and V live on 7 different floors of a building but not necessarily in the same order. The lower most floor of the building is numbered one, the floor above it is numbered two and so on till the topmost floor is numbered seven. Each one of them likes different games namely - Soccer, Badminton, Table Tennis, Boxing, Cricket, Hockey and Basketball (but not necessarily in the same order).

Only three people live between Q and T. Q lives on one of the floors above T. T does not live on the lowermost floor. Only one person lives between Q and the one who likes Table Tennis.

Only two people live between V and the one who likes Table Tennis. The one likes Soccer lives immediately above V. P lives immediately above U. P does not like Table Tennis.

The one who like boxing lives on one of the odd-numbered floors below U. V does not like Boxing. S lives on one of the floors above R. Only one person lives between the one who likes cricket and the one who likes Hockey. S does not like cricket. V does not like Badminton.

Q 14. Which of the following games does Q like?

1. Soccer
2. Boxing
3. Basketball
4. Badminton

Q 15. Who amongst the following lives on the floor numbered 4?

1. The one who likes Hockey
2. The one who likes Table Tennis
3. P
4. U

Q 16. Which of the following statements is true with respect to the given arrangement?

1. Only two people live between T and V
2. The one who likes Hockey lives immediately above T
3. R likes Table Tennis
4. R lives on an even-numbered floor.

Q 17. If all the people are made to sit in alphabetical order from top to bottom, the positions of how many people will remain unchanged?

1. None
2. Three
3. Two
4. One

Q 18. Which of the following combinations is true with respect to the given arrangement?

1. Basketball - R
2. Boxing - Q
3. Cricket - T
4. Table Tennis - U

Directions (19-23): Rearrange the given 5 sentences A, B, C, D, and E in a proper sequence so as to form a meaningful paragraph.

1. The recently announced Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) project, has some remarkable recommendations which showcase the concerted effort being made by the Government to re-evaluate the lesser performing elements of the previous skilling cycle.
2. Currently, the skilling landscape has a plethora of agencies under the MSDE, which attempt to co-ordinate the different aspects of fulfilling the mammoth task of creating 8.1 million jobs per year in order to keep the employment rate constant.
3. The government elected in May 2014 changed this trend and upgraded the training and apprentice division of the Ministry of Labour and Employment to a brand new Ministry of Skill Development and Entrepreneurship that would co-ordinate skilling efforts.
4. Skill development in India has evolved over the past few decades, from a programme that focused on technical education provision, to an all-encompassing mission that attempts to create employment in various economic sectors.
5. The 2009-2014 government had divided the responsibility and administration of skilling initiatives among various ministries.

Q 19. Which of the following is the last sentence?

1. 5
2. 1
3. 2
4. 3

Q 20. Which of the following is the second sentence?

1. 5
2. 2
3. 4
4. 1

Q 21. Which of the following is the third sentence?

1. 1
2. 3
3. 2
4. 5

Q 22. Which of the following is the fourth sentence?

1. 4
2. 2
3. 3
4. 1

Q 23. Which of the following is the first sentence?

1. 5
2. 4
3. 2
4. 1

Directions (24-25): Fill in the blank with the appropriate word

The ruling came at a time when the entire Western World is ---- (24)---- with constitutional upheaval triggered by populist leaders who have stoked a conflict between the rule of law and rule by “the people,” their will defined by the populist leader. Populist governments on both sides of the Atlantic ocean have broken with the constitutional tradition and convention, abandoning precedent in order to seize any possible advantage, as Johnson sought to do in ----(25)---- Parliament.

Q 24.

1. Undivided
2. Unanimous
3. Riven
4. United

Q 25.

1. Resume
2. Facilitate
3. Complete
4. Prorogue

Answer Keys

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

Solution 1:

Logic is that Money spent and money earned by selling is equal. Hence, the percentage of profit is got by

$$(\text{Goods left} / \text{goods sold}) \times 100$$

$$= (400/900) \times 100$$

$$= (4/9) \times 100$$

$$= 44.44\%$$

Shortcut:

It is advisable for candidates to study and remember fraction to percentage conversions to help in the faster calculation.

In the above question notice that $1/9 = 11.11\%$

Hence $4/9 = 44.44\%$

If we come across fraction $1/11$ then conversion is 9.09% and $4/11$ becomes 36.36%

Solution 2:

This problem is solved faster with the help of percentage change rules, and percentage to fraction conversion is very helpful.

If the price reduces by 10% then convert 10% to a fraction, it gives $1/10$.

When price reduces, consumption increases this can be got by handling fraction $1/10$.

Increase in consumption is given by $1/(10-1)$ i.e. adding numerator to the denominator.

Hence we get $1/9$. Now remember fraction to percentage conversion, so it gives 11.11%

11.11% is the increase in consumption, but it is same as 5 litres.

Hence $(1/9) * \text{original consumption} = 5$

Therefore original consumption = 45 litres.

Hence original price = $2700 / 45 = \text{Rs } 60$ per litre.

Solution 3:

The conventional process is to find LCM and solve it. But it becomes cumbersome hence a short cut method is below.

The main idea is to get one single ratio A: B: C. Hence, the final ratio is

$$2 \times 4: 3 \times 4: 3 \times 5$$

$$= 8:12:15$$

$$8x = 1600$$

$$x = 200$$

$$15x = 15 * 200 = \text{Rs } 30,000$$

Solution 4:

Let us consider T = time, D = distance, V = velocity, Q = quantity of coal used, N= number of carriages.

$$T = (K \times D) / V$$

Also as per the question,

$$V = (K_1 \times \sqrt{Q}) / N$$

K and K_1 are constants.

From the above 2 equations, we can come to,

$$T = (K \times D \times N) / (K_1 \times \sqrt{Q})$$

We can replace constants $K/K_1 = K_2$

$$T = (K_2 \times D \times N) / \sqrt{Q}$$

From the details in the question,

$$30 = (K_2 \times 50 \times 24) / 100$$

$$K_2 = 5$$

Thus the equation becomes $T = (5 \times D \times N) / \sqrt{Q}$

When $D=60$, $T=120$, $N=20$, we get

$$120 = (5 \times 60 \times 20) / \sqrt{Q}$$

$$Q = 2500$$

Solution 5:

In order to finish the work in time, the contractor has to finish the remaining 60% of the work in the remaining 50 days.

Now in the first 50 days the work done = $50 \times 50 = 2500$ man-days

2500 man-days = 40% of the work.

Hence, work left = 60% of the work = 3750 man-days

Since 50 days are left to finish the task, the number of people required is

$$3750 / 50 = 75 \text{ men.}$$

Since 50 men are already working, 25 more men are needed to complete the work.

Solution 6:

This question involves solving through conventional LCM method hence it will be time-consuming. The better option is to choose the percentage fraction conversion method. Candidates have to internalise this conversion method for faster calculation.

A can complete a work in 10 days. So his 1-day work is $1/10 = 10\%$ work gets done by A in 1 day.

B can complete a work in 20 days. So his 1-day work is $1/20 = 5\%$ work get done by B in 1 day.

Work completed together by A and B in 1 day = $10\% + 5\% = 15\%$

Hence, in 5 days both complete $15\% \times 5 \text{ days} = 75\%$ of the work.

Now only 25% of the work is remaining which needs to be completed by B and B's 1-day work is 5%.

Hence B can complete the remaining work in $25\% / 5\% = 5 \text{ days}$

Solution 7:

Let the radius of the larger circle be R and the radius of the smaller circle be r.

Circumference of the larger circle = $2 \pi R = 2 \times (22/7) \times R$

$$2 \times (22/7) \times R = 440$$

$$R = 70 \text{ cm}$$

As per the question, the track is 14 m wide everywhere, hence

The radius of smaller circle $r = 70 - 14 = 56 \text{ cm}$.

Therefore the area that needs levelling = $\pi (R^2 - r^2)$

$$= (22/7) \times (70^2 - 56^2)$$

Instead of going for higher square calculation, we can even opt the formula

$$a^2 - b^2 = (a + b) (a - b)$$

$$= (22/7) \times [(70+56) (70-56)]$$

$$= 5544 \text{ cm}^2$$

Hence the cost of levelling the track at the rate of 25 paise per square metre

$$= \frac{1}{4} \times 5544 = \text{Rs } 1386/-$$

Solution 8:

Here we need to understand that the perimeter of the square is the same as the circumference of the circle

Area of square $a^2 = 1936$

$a = 44$ cm

Perimeter = $4a = 4 * 44 = 176$ cm

Circumference of circle = $2\pi r = 2 * \frac{22}{7} * r = 176$

Hence $r = 28$ cm.

Area of circle = $\pi r^2 = \frac{22}{7} * 28 * 28 = 2464$ cm²

Solution 9:

$$12 + 10 + 2^2 = 26$$

$$26 + 15 + 3^2 = 50$$

$$50 + 20 + 4^2 = 86$$

$$86 + 25 + 5^2 = 136$$

$$136 + 30 + 6^2 = 202$$

Solution 10:

$$20 + 2^2 + 3^2 = 33$$

$$33 + 3^2 + 4^2 = 58$$

$$58 + 4^2 + 5^2 = 99$$

$$99 + 5^2 + 6^2 = 160$$

$$160 + 6^2 + 7^2 = 245$$

Solution 11:

$$50 + 2^3 = 50 + 8 = 58$$

$$58 + 3^3 = 58 + 27 = 85$$

$$85 + 4^3 = 85 + 64 = 149$$

$$149 + 5^3 = 149 + 125 = 274$$

$$274 + 6^3 = 274 + 216 = 490$$

Solution 12:

$$250 \div 50 \times 25 - 15 + 5 = 65$$

Solution 13:

The above expression is rewritten as $96 \div 12 + 40 \times 3 - 40$

Using BODMAS rule

$$= 8 + 120 - 40 = 88$$

Solution 14:

From the below table you can find that Badminton is the answer

Floors	Name of persons	Games
7	Q	Badminton
6	P	Basketball
5	U	Table Tennis
4	S	Hockey
3	T	Soccer
2	V	Cricket
1	R	Boxing

Solution 15:

From the above table, we can find that the one who likes Hockey lives on floor 4.

Solution 16:

From the above table, we can find that the one who likes Hockey lives immediately above T

Solution 17:

From the above table, we can find that only S will remain unchanged.

Solution 18:

Table Tennis - U is the true arrangement.

