

RBI Assistant Mock Test 2

Q 1. How many distinct words can be formed out of the word PROWLING which starts with R and ends with W?

1. $6! \times 2!$
2. $6!$
3. $6! / 2!$
4. $8!$

Q 2. There is a question paper consisting of 20 questions. Each question has an internal choice of 5 options. In how many ways a student can attempt one or more questions of the given 20 questions in the paper?

1. 6^{20}
2. 5^{20}
3. $5^{20} - 1$
4. $6^{20} - 1$

Q 3. There are twelve points in a plane such that no three are collinear. Find the number of triangles that can be formed using these points as vertices.

1. 210
2. 220
3. 120
4. 150

Q 4. The letters of the word JAIPUR are arranged among themselves. Find the probability of always having JAI in the word?

1. $1/15$
2. $1/20$
3. $1/35$
4. $1/30$

Q 5. If $6^{x+1} - 6^{x-1} = 35$, find x.

1. 1

2. 0
3. -1
4. 2

Q 6. 6 men can do a work in 12 days while 16 women can do it in 10 days. In how many days can 12 men and 15 women can complete the same work.

1. 2.8
2. 2.5
3. 3
4. 3.8

Q 7. The ratio between the two numbers is 7:13 and their LCM is 273. The second number is:

1. 21
2. 31
3. 33
4. 23

Q 8. If 930 bananas were distributed among three gorillas in the ratio $\frac{1}{3} : \frac{1}{2} : \frac{1}{5}$, how many bananas did the second gorilla get?

1. 500
2. 450
3. 400
4. 300

Q 9. What is the value in the place of question mark?

$$337.99 \times 29.99 + ?^2 \times 190.36 = 129111.32$$

1. 25
2. 27
3. 35
4. 40

Q 10. In a certain code, 'TEACHER' is written as 'SDZBGDQ'. How is 'STUDENT' written in that code?

1. NSTCDMS
2. MSCTEJS
3. UIOKJHS
4. QRETYUS

Q 11. In a certain code language, 'MATHEMATICS' is written as 'KCRJCOYVAU' what is the code for HISTORY?

1. FKQVMTW
2. QWERTYU
3. ASDFJIT
4. TIMVJSD

Q 12. Pointing towards a person, a woman said to a woman, "Her mother is the only daughter of your father." How is the woman related to that person?

1. Grandmother
2. Mother
3. Aunt
4. Daughter

Q 13. Pointing to a pic, Ram said: "he is the father of my daughter's husband's son." How is Ram related to the Man?

1. Father in law
2. Son in law
3. Grandfather
4. None of these

Directions (14-15): In each of the questions a matrix of certain characters is given. These characters follow a certain trend, row-wise or column-wise. Find out the trend and choose the missing options from the given alternatives.

Q 14.

108	36	6
168	42	8
240	?	10

1. 38
2. 40
3. 42
4. 48

Q 15.

8	12	20
12	18	30
16	24	?

1. 35
2. 45
3. 50
4. 40

Directions (16 - 19): Study the information carefully and answer the questions:

Five friends A, B, C, D, and E travel from Florida individually for five cities i.e. California, Kentucky, Dallas, Chicago and New York by different means of transport i.e. hyperloop, bullet train, airplane, car, and boat.

The one who traveled to Dallas did not use the boat. C traveled for New York by car and D traveled by boat. B traveled by airplane for Kentucky and E traveled by bullet train. Dallas and California are not connected with a bus route to Florida.

Q 16. Which combination of place and transport of the following is true?

1. Kentucky - Hyperloop
2. Dallas - Aeroplane
3. New York - Bullet Train
4. California - Boat

Q 17. B: Kentucky:: D:?

1. Chicago
2. California
3. New York
4. Dallas

Q 18. Who of the following traveled for Dallas?

1. E
2. C
3. D
4. A

Q 19. Which of the following is true for A?

1. Traveled by hyperloop for Kentucky
2. Traveled by bullet train for Dallas
3. Traveled by boat for California
4. Traveled by hyperloop for Chicago

Directions (20-24): Rearrange the given 5 sentences A, B, C, D, and E in a proper sequence so as to form a meaningful paragraph.

1. The only alternative is Europe, but both sides are prisoners of their respective histories.
2. In fact, Russians have yet to even decide where their country resides in the world.
3. Russians have no interest in associating themselves with Asia
4. Although the European Union and Russia are part of the same landmass, they don't have all that much in common.

5. The bulk of its territory is in Asia, but 70% of people of its people live west of the Ural Mountains.

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

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

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

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

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

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

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

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

Q 24. Which of the following is the fourth sentence?

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

Q 25. Fill in the blank with the appropriate word

Revelations that a ----- from the intelligence community has accused President of making inappropriate promises to a foreign leader have reignited the hopes.

1. Whistleblower
2. Attorney General
3. Whispers
4. Whistl



Answer Keys

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

Solution 1:

There are 8 letters. If all 8 had to be arranged then, the answer would have been 8!

Now since 2 locations are fixed, that is the first position by R and last position by W, we need to arrange remaining letters in the remaining 6 positions.

R - - - - - W the 6 positions can be filled in different ways by P, O, L, I, N, G.

Hence the remaining 6 positions can be filled by the remaining 6 letters in 6! Ways.

Solution 2:

When it comes to every question we have 6 choices i.e. attempt 5 internal options + 1 No attempt.

Thus there are a total of 6^{20} ways of answering the question. This is not the final answer, because there is one way in which student does not answer any question.

Hence, there are a total of $(6^{20} - 1)$ way of answering at least one question.

Solution 3:

To form a triangle, 3 points are required. We have to select 3 points out of 12 points.

The question says no three points are collinear, it means no 3 points are in a straight line.

Hence, the number of triangles that can be formed by selecting 3 points of 12 points,

$$= {}^{12}C_3 = (12 \times 11 \times 10) / (3 \times 2 \times 1) = 220$$

220 triangles can be formed by selecting 3 points out of 12.

Solution 4:

The total number of ways the letters in the word JAIPUR can be arranged = $6!$

In the rearrangement, when JAI needs to be together all the time, we take the total number of letters as 4, not 6; hence rearrangement can be done in $4!$ Ways.

We consider JAI as 1 single letter (since they need to be together all the time) and the remaining 3 letters are P, U, R.

Hence the probability is given by $4! / 6! = 1/30$

Solution 5:

We can take 6^{x-1} as a common term.

$$6^{x-1} (6^2 - 1) = 35$$

$$6^{x-1} (36 - 1) = 35$$

$$6^{x-1} (35) = 35$$

$$6^{x-1} = 1$$

Using the logarithm formula,

$$a^x = b$$

$$\log_a b = x$$

$$\log_6 1 = x - 1$$

As per logarithm rules, $\log_a 1 = 0$

$$\text{Hence, } \log_6 1 = 0$$

$$\text{Therefore, } x - 1 = 0$$

$$x = 1$$

Solution 6:

Total work to be done = $6 \times 12 = 72$ man-days or

Total work to be done = $16 \times 10 = 160$ women days

Since the work is the same, we can equate

$$72 \text{ man-days} = 160 \text{ women days}$$

$$\text{Hence, } 1 \text{ man-day} = 2.222 \text{ woman days}$$

Now, if 12 men and 15 women are working, we get

$$12 \text{ men are equal to } 12 \times 2.222 = 27 \text{ women}$$

Hence the work done per day is equivalent to $27 + 15 = 42$ women working per day.

$$\text{Hence, } 42 \times \text{no.of days} = 160 \text{ woman days}$$

$$\text{No.of days} = 3.8 \text{ days.}$$

Solution 7:

The numbers would be $7x$ and $13x$ and their LCM would be $91x$.

But the question says LCM is 273.

$$\text{Hence, } 91x = 273$$

$$x = 3.$$

$$7x = 7 * 3 = 21$$

$$11x = 11 * 3 = 33$$

Solution 8:

First, let us convert the fraction ratio into the whole number ratio.

LCM of denominators of 3, 2, 5 is 30.

Hence the new ratio will be 10:15:6

$$31x = 930$$

$$x = 30$$

Number of bananas received by the second gorilla = $15x$

$$= 15 * 30 = 450 \text{ bananas.}$$

Solution 9:

$$337.99 \times 29.99 + ?^2 \times 190.36 = 129111.32$$

$$10136.3201 + ?^2 \times 190.36 = 129111.32$$

$$?^2 \times 190.36 = 129111.32 - 10136.32$$

$$?^2 = 118975 / 190.36$$

$$= 625$$

$$? = 25$$

Solution 10:

$$T - 1 = S$$

$$E - 1 = D$$

$$A - 1 = Z$$

$$C - 1 = B$$

$$H - 1 = G$$

$$E - 1 = D$$

$$R - 1 = Q$$

Applying the above logic of -1 we get the answer as NSTCDMS.

Solution 11:

$$M - 2 = K$$

$$A + 2 = C$$

$$T - 2 = R$$

$$H + 2 = J$$

$$E - 2 = C$$

$$M + 2 = O$$

$$A - 2 = Y$$

$$T + 2 = V$$

$$I - 2 = G$$

$$C + 2 = E$$

$$S - 2 = Q$$

Using the above logic we can write the code for HISTORY is FKQVMTW.

Solution 12:

She is the mother of that person.

Solution 13:

Ram is the father in law of the person.

Solution 14:

$$108 = (36/2) * 6$$

$$= 18 * 6$$

$$168 = (42/2) * 8$$

$$= 21 * 8$$

$$240 = (48/2) * 10$$

$$= 24 * 10$$

Solution 15:

In the first row

$$8 * (3/2) = 12$$

$$8 * (5/2) = 20$$

In the second row

$$12 * (3/2) = 18$$

$$12 * (5/2) = 30$$

In the third row

$$16 * (3/2) = 24$$

$$16 * (5/2) = 40$$

Solution 16:

A	Chicago	Hyperloop
B	Kentucky	Aeroplane
C	New York	Car
D	California	Boat
E	Dallas	Bullet Train

From the above table, we can conclude that California - Boat is the answer.

Solution 17:

From the above table, we can find that California is the answer.

Solution 18:

From the above final table, we can conclude that E traveled to Dallas.

Solution 19:

From the above table, we can conclude that A traveled by bus to Chicago.