
1 LAKH + SELECTED ASPIRANTS
CHOSE SMARTKEEDA
NOW IT'S YOUR TURN!
2024 ACHIEVERS
RIYA BAISHYA
(IBPS PO & CLERK 2024)
SURBHI
(IBPS CLERK)
MUSKAN PARWEEN
(IBPS CLERK 2024)
KARMANPREET KAUR
(IBPS PO 2024)
ADITYA LODHI
(IBPS CLERK 2024)
SANCHITA KARMAKAR
(IBPS CLERK 2024)
S MOUNIKA
(IBPS PO 2024)
DIVYANSH NARAIN
(IBPS PO 2024)
PARWINDER SINGH
(IBPS CLERK 2024)
ANKITA PAUL
(IBPS CLERK 2024)
YASHIKA BHARDWAJ
(IBPS PO 2024)
DUSHYANT RATHORE
(IBPS PO 2024
IBPS CLERK 2024)
Best of SmartKeeda
Mock Tests
CA Mockdrill
Speed Drills
Topic Tests
Sectionals
Smart Video Course
USE CODE FEST25 for 10% OFF


Smartkeeda
presents
SPEED DRILLS
India's first tool to improve
SPEED & ACCURACY
in Bank Exams
Practice 40,000+ Ques in
( English | Reasoning | Quant)
Features:
Improve Speed and Accuracy
Unlimited no. of drills/quizzes
Detailed Explanation
AI Driven Analysis
Topic Wise Questions
Useful For
RRB Clerk | RRB PO| IBPS Clerk |
IBPS PO | SBI Clerk | SBI PO

# Probability Questions for IBPS RRB Office Asst. Mains, IBPS Clerk Mains and SBI Clerk Mains Exams.

## Probability Quiz 6

**Directions : Read the following questions carefully and choose the right answer.**

1. **All the letters of the word PARENTS are rearranged randomly, the probability that the vowels will come together is how much less than the probability that the vowels will not come together?**

   A. 2/7 B. 5/7 C. 3/7 D. 4/7 E. 6/7

2. **There are 40 students in a class and ratio of boys and girls is 3 : 2. Class is divided in two sections A and B. Probability that a randomly selected boy is from section B is 1/3. If 2 students are transferred from A to B, students in both the sections will be equal. If a girl is selected, what is the probability that the girl is from section B?**

   A. 1/5 B. 5/11 C. 5/8 D. 3/7 E. 2/5



3. **A bag has a few blue and red balls such that total balls are 10. Probability of getting two blue balls on withdrawing two balls is 2/15. Find the probability of finding one red ball if one ball is drawn at random from the bag.**

   A. 1/ 5 B. 3/10 C. 7/10 D. 3/5 E. 2/5

4. **A bag has 5 White balls and 8 Black balls. Find the probability of getting one White and two Black balls if three balls are chosen at random from the bag.**

   A. 41/161 B. 82/143 C. 70/143 D. 68/159 E.84/193

5. **Billiard Balls of three colors Green, Blue and White are kept in a bag. Probability of getting a Green ball is 1/7 and that of a White ball is 3/8 if one ball is picked at random. What would be the probability of getting one Blue ball if one ball is picked at random?**

   A. 21/55 B. 13/51 C. 27/56 D. 41/57 E. 31/56

6. **A bag contains some Red, Blue and green balls and the total number of balls is 30. The probability of drawn ball being red is 0.4 and the ratio of green and blue balls is 4 : 5. If two balls are drawn one after the other with replacement, what is the probability that first one is not red and second one is not blue?**

A. 2/5 B. 1/4 C. 3/8 D. 3/10 E. 2/9

7. **A bag has few green, red and white balls. The number of red balls is 20% more than the green balls and the number of white balls is 25% more than the green balls. If 21 black balls are put in the bag, then probability of getting a green ball becomes 2/9. What could be the number of red balls in the bag?**

A. 24 B. 20 C. 25 D. 18 E. None of these

8. **A committee of four persons is selected from five men and six women. What is the probability that the committee will have exactly two women?**

A. 5/11 B. 8/47 C. 7/19 D. 9/38 E. None of these

9. **A bag has balls of three different colors – Red, Blue, and Green. If one ball is picked, the probability that it is of Red color is 4/11 and the probability that it is of Green color is 13/22. Find how many Blue balls are there in the bag if number of balls in the bag is not more than 30.**

A. 1 B. 3 C. 7 D. 21 E. Can't be determined

10. **There are 6 dogs, 4 cats and 8 rabbits in a house of a pet lover. He throws three candies for them. What is the probability that all the candies will be eaten by three different type of pets?**

A. 8/51 B. 1/5 C. 19/41 D. 4/5 E. 4/17

**Correct Answers:**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| C | C | D | C | C | A | A | A | A | E |

**Explanation:**

**1.** Total possible arrangements of letter of PARENTS = 7!

Probability that the vowels will come together

$= \frac{2 \times 6!}{7!} = \frac{2}{7}$

Probability that the vowels will not come together

$= 1 - \frac{2}{7} = \frac{5}{7}$

Difference $= \frac{5}{7} - \frac{2}{7} = \frac{3}{7}$

Hence, option C is correct.

**2.** Total = 40, Boys : Girls = 3 : 2

Boys = 24 Girls = 16



Probability that a selected boy is from section B = 1/3

Boys in section B $= \frac{1}{3} \times 24 = 8$,

Boys in section A = 16

Let students in A and B be a and b

a – 2 = b + 2

a – b = 4

So, students in A = 22 and B = 18

Girls in A = 22 – 16 = 6 and in B = 18 – 8 = 10

Probability that a selected girl is from section B

$= \frac{10}{16} = \frac{5}{8}$

Hence, option C is correct.

**3.** Let there are 'y' blue balls, then

$\frac{{}^{y}C_2}{{}^{10}C_2} = \frac{2}{15}$

$\frac{y(y-1)}{10 \times 9} = \frac{2}{15}$

$y^2 - y - 12 = 0$

$y^2 - 4y + 3y - 12 = 0$

y = 4 (positive root)



So, number of blue balls are 4, then number of red balls = 6.

Probability of getting one red balls

= 6/10

Hence, option D is correct.

**4.** Total balls 5 + 8 = 13 balls.

Probability of getting one white and two black balls

$= \frac{{}^{5}C_1 \times {}^{8}C_2}{{}^{13}C_3} = \frac{5 \times 28}{286} = \frac{70}{143}$

Hence, option C is correct.

**5.** Let the probability of getting a blue ball is b. Then

$$1 = \frac{1}{7} + b + \frac{3}{8}$$

$$b = \frac{27}{56}$$

Hence, option C is correct.

**6.** Red = 0.4 × 30 = 12

Green + Blue = 30 – 12 = 18

Green : Blue = 4 : 5

So, Green balls = 8 and Blue balls = 10

Probability of first ball not being red = 18/30

Probability of second ball not being blue = 20/30

$$\text{Probability} = \frac{18}{30} \times \frac{20}{30} = \frac{2}{5}$$



Hence, option A is correct.

**7.** Let the number of green balls be y, then

Red balls = y + 20% of y = 1.2y

White balls = y + 25% of y = 1.25y

When 21 black balls are put, probability of getting a green ball is 2/9, so

2/9 = number of green balls/total balls

$$= \frac{y}{(y + 1.2y + 1.25y + 21)} = \frac{Y}{(3.45y + 21)}$$

6.9y + 42 = 9y

2.1y = 42

y = 20

Number of red balls = 1.2y = 24

Hence, option A is correct.

**8.** Since the committee have two women,

The number of men = 4 – 2 = 2

Choosing 2 men out of 5 = $^{5}C2$

Choosing 2 women out of 6 = $^{6}C2$

Choosing 4 persons out of 11 = $^{11}C4$

$$\frac{{}^{5}C_{2}\times{}^{6}C_{2}}{{}^{11}C_{4}}=\frac{\left\{\left(\frac{5\times4}{2}\right)\times\left(\frac{6\times5}{2}\right)\right\}}{\left\{\frac{(11\times10\times9\times8)}{(4\times3\times2\times1)}\right\}}=\frac{5}{11}$$



Hence, Option A is correct.

**9.** Probability of picking a ball such that it is red = 4/11 = 8/22

Probability of picking a ball such that it is green = 13/22

Probability of picking a ball such that it is blue = 1 – {(8/22) + (13/22)} = 1/22

From the denominator of 1/22, we can observe that the number of balls must be in the multiples of 22, i.e., 22, 44, 66, and so on

Since there cannot be more than 30 balls, the total number of balls must be 22. Therefore the number of blue balls must be 1.

Hence, option A is correct.

**10.** Total number of pets = 6 + 4 + 8 = 18

Number of ways in which the candies can be eaten by any of the three pets = 18C3 = 816

Number of ways the candies can be eaten by three different types of pets, is equal to selecting

one pet from each type of pets = ${}^{6}C1 \times {}^{4}C1 \times {}^{8}C1 = 192$

Probability of candies having eaten by three different pets

$= \frac{192}{816} = \frac{4}{17}$

Hence, option E is correct.