

# Chapterwise

(General & Advance)

**PYQ-Solved Questions** 

**Based on the Latest Pattern** 



1200+ MCQs

RPF CONSTABLE





### **Chapterwise**

# Mathematics

(General & Advance)

**PYQ**-Solved Questions

# RRB Group-D RPF SI & RPF Constable

- In the past few years, RRB conducted all its examinations in the CBT (Computer Based Test) format.
- In these examinations, questions are not repeated, but the nature and pattern of the questions remain more or less the same.
- This observation is based on a careful analysis of the questions that have been asked in the past two years.
- Accordingly, in this book, solutions of the important questions asked in the previous years have been given.
- The explanations have been framed in such a way that you can understand the answers along with the concepts in detail without any external help.

Editor N.N. Ojha Solved by

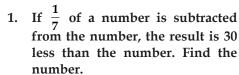
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### **NUMBER SYSTEM** CHAPTER **PYQ-SOLVED QUESTIONS**



- (a) 105
- (b) 140
- (c) 120
- (d) 210

RRB RPF Constable - 24/05/2019 (Shift-III)

If the product of two number is 24, and their square's sum is 52, then find their sum.

- (a) 5
- 10
- (c) 15
- (d) 20

RRB RPF Constable - 24/01/2019 (Shift-I)

The sum of two numbers is 22. Five times of one number is equal to 6 times the other. Find the larger of the two numbers.

- (a) 12
- (d) 16
- (c) 10

RRB RPF Constable - 25/05/2019 (Shift-I)

The product of two numbers is 9375. The quotient, when the largest number is divided by the smallest number is 15. Find the sum of these numbers.

- (a) 400
- (b) 380
- (d) 395
- (c) 425

RRB RPF Constable - 30/05/2019 (Shift-II)

If the sum of two numbers is 13 and the sum of their squares is 97, what is their product?

- (a) 72
- (b) 36
- (c) 110
- (d) 84

RRB RPF Constable - 28/06/2019 (Shift-III)

Which of the fraction given below, when added to  $\frac{13}{5}$ , gives 1? (a)  $-\frac{48}{30}$  (b)  $-\frac{7}{5}$ (c)  $-\frac{28}{10}$  (d)  $-\frac{8}{15}$ 

RRB Group-D - 19/09/2018 (Shift-II)

Shalini, Tanyir and Rashid shared a cake. Shalini had  $\frac{1}{6}$  part of it, Tanvir had  $\frac{1}{4}$  part of it and Rashid had the remaining part. What was fraction of Rashid's cake?

RRB Group-D - 31/10/2018 (Shift-II)

The sum of two numbers is 9. The sum of their reciprocals is  $\frac{1}{2}$ . One of the numbers is.

- (a) 2
- (b) 4
- (c) 5
- (d) 6

RRB Group-D - 17/09/2018 (Shift-III)

Two partners M and N buy a car. M Pays his share of  $\frac{3}{7}$  of the total cost of the car. M pays ₹31,540 less as compared to N. What is the cost of the car?

- (a) ₹2,32,680
- (b) ₹2,03,175
- (c) ₹2,20,780
- (d) ₹1,85,780

RRB Group-D 31-08-18 (Shift-III)

10. If  $\frac{2}{3}$ part of a pizza costs ₹300, then  $\frac{3}{5}$  part of a pizza will cost:

- (a) ₹180
- (b) ₹250
- (c) ₹225
- (d) ₹270

RRB Group-D 30-08-18 (Shift-I)

11. The sum of the digits of a two digit number is 10. When the digits are interchanged is reduced the number to 36. Find the changed number.

- (a) 82
- (b) 73
- (c) 37
- (d) 28

RRB RPF Constable - 17/01/2019 (Shift-III)

12. The sum of a two digit number and the number made by interchanging its digits is 132. If the difference of the digits is 4, find the number.

- (a) 37
- (b) 84
- (c) 73
- (d) 62

RRB RPF-SI - 16/01/2019 (Shift-III)

13. The sum of the digits of a two digit number is 12. The new number formed when the digits are interchanged is 18 more than the original number. What is the original number?

- (a) 39
- (b) 48
- (c) 75
- (d) 57

RRB Group-D - 26/11/2018 (Shift-III)

14. The sum of the digits of a two digit number is 9. Also nine times of this number is twice the number obtained by reversing the order of the digits. Find the number.

- (a) 19
- (b) 18
- (c) 28
- (d) 30

RRB Group-D - 05/11/2018 (Shift-III)

15. The sum of the digits of a two digit number is 11. The new number formed when the digits interchanged is 45 less than the original number. Find the oridinal number.

- (a) 92
- (b) 56
- (c) 65
- (d) 83

RRB Group-D - 15/10/2018 (Shift-III)

16. Which of the following is not an irrational?

- (a)  $\sqrt{5428}$
- (b)  $\sqrt{6084}$
- (d)  $\sqrt{7652}$

RRB RPF Constable - 18/01/2019 (Shift-III)

17. Find the value of the denominator of  $\frac{1}{(5+\sqrt{3})}$  in rational number.

- (a)  $\frac{\left(5-\sqrt{3}\right)}{22}$  (b)  $5+\frac{\sqrt{3}}{22}$  (c)  $5-\frac{\sqrt{3}}{20}$  (d)  $\frac{\left(5-\sqrt{3}\right)}{20}$

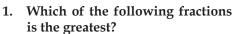
RRB Group-D - 29/10/2018 (Shift-III)

18. Which of the following square roots is irrational?

- (a) 21025
- (b) 18025
- (c) 13225
- (d) 15625

RRB Group-D - 21/07/2018 (Shift-I)

### **DECIMAL FRACTIONS** CHAPTER **PYQ-**solved questions



- (a)

RRB RPF-SI - 11/01/2019 (Shift-III)

Arrange the following ratios in decreasing order, which number will be the last?

11:14, 17:21, 5:7, 2:3

- (a) 17:21
- (b) 5:7
- (c) 2:3
- (d) 11:14

RRB Group-D - 05/10/2018 (Shift-II)

3. Which of the following fractions is the largest?

$$\frac{1}{8}$$
,  $\frac{2}{12}$ ,  $\frac{3}{16}$ ,  $\frac{4}{20}$ 

RRB Group-D - 12/10/2018 (Shift-III)

Which of the following will have a terminating decimal expansion?

- 57 (a) 120
- 150
- 61 (c) 110

RRB Group-D - 20/09/2018 (Shift-II)

What is the correct expression  $0.06\overline{54}$  [( ) sign represents continuous decimal)]?

- 18 275
- 654 (c)

RRB RPF-SI - 10/01/2019 (Shift-III)

 $0.\overline{047619}$ , when written as a vulgar fraction, is equal to-

RRB Group-D - 19/09/2018 (Shift-II)

Convert 0. 6 into fraction:

RRB Group-D - 28/09/2018 (Shift-II)

Show  $0.08\overline{36}$  in the form of vulgar fraction.

- 46

RRB Group-D - 15/11/2018 (Shift-III)

When  $\frac{1}{450}$ , written as recurring decimal, it will be equal to:

- (a) 0.2
- (b) 0.02
- (c) 0.002
- (d) 0.0002

RRB Group-D - 12/10/2018 (Shift-I)

10. Express 0.0987 as a vulgar fraction in its lowest form?

- 163 (a) 1650
- 9990
- 3300

 $RRB\ Group\text{-}D\text{-}08/10/2018\ (Shift\text{-}III)$ 

11. Simplify:  $\frac{6}{27} \div \frac{27}{30} \div \frac{20}{81}$ 

- (b) 6
- (c) 3
- (d) 1

RRB Group-D - 20/01/2019 (Shift-II)

 $\frac{0.3}{1000}$  equals to:

- (a):  $3 \times 10^{-4}$
- (b)  $3 \times 10^{-6}$
- (c)  $3 \times 10^5$
- (d)  $3 \times 10^{-5}$

RRB Group-D - 23/09/2018 (Shift-I)

13. Convert  $\frac{1}{9}$  in its simple form:

RRB Group-D - 26/09/2018 (Shift-I)

14. The sum of A fraction and its inverse is  $2\frac{25}{66}$  Find the greater number of the two:

RRB Group-D - 05/10/2018 (Shift-II)

15. The difference between a positive fraction and its inverse is  $6\frac{39}{160}$ . Find the fraction.

- 5

RRB Group-D - 15/10/2018 (Shift-II)

16. The difference of a fraction and its inverse is  $\frac{9}{11}$ . Then the difference of cubes of the fraction and its inverse will be:

- 1331

RRB Group-D - 11/10/2018 (Shift-I)

17. The subtracted value of a fraction from  $\frac{1}{6}$  is  $\frac{1}{13}$ . Find the fraction.

RRB Group-D - 03/10/2018 (Shift-III)

18. Which of the following fraction will be subtracted from  $\frac{3}{4}$  to give the result  $\frac{5}{12}$ ?

RRB Group-D - 19/09/2018 (Shift-III)

# CHAPTER

## **SURDS AND INDICES** PYQ-solved questions

- 1. If  $\sqrt{0.0361}$  x = 1.9, then x = ?
  - (a) 100
- (b) 10
- (c) 100
- (d) 1

RRB Group-D - 01/12/2018 (Shift-II)

2. If  $\sqrt{7} = 2.6457$  and  $\sqrt{3} = 1.732$ ,

Then find the value of  $\frac{1}{\sqrt{7}-\sqrt{3}}$ 

- (a) 1.0944
- (b) 1.944
- (c) 1.009
- (d) 1.0844

RRB RPF Constable - 25/01/2019 (Shift-III)

- 3. If  $\sqrt{45} + \sqrt{20} = 11.180$ , then find the value of  $\sqrt{180} + 4\sqrt{5}$ 
  - (a) 22.360
- (b) 24.595
- (c) 20.124
- (d) 17.888

RRB Group-D - 28/09/2018 (Shift-II)

- 4. If  $3\sqrt{5} + \sqrt{125} = 17.84$  Then, how much will be  $\sqrt{80} + 7\sqrt{5}$ 
  - (a) 33.3
- (b) 24.53
- (c) 22.0
- (d) 22.3

RRB Group-D - 11/10/2018 (Shift-II)

- 5. If  $\sqrt{50} + \sqrt{128} = \sqrt{N}$  then what is the value of N?
  - (a) 26
- (b) 390
- (c) 338
- (d) 182

RRB Group-D - 31/10/2018 (Shift-II)

- 6. Simplify the following expression:  $7\sqrt{48} + 7\sqrt{147}$ 
  - (a)  $77\sqrt{7}$
- (b)  $76\sqrt{3}$
- (c)  $76\sqrt{7}$
- (d)  $77\sqrt{3}$

RRB Group-D - 04/10/2018 (Shift-II)

- If  $\sqrt{0.0169}$  x = 1.3, then x = ?
  - (a) 10
- (b) 1
- (c) 100
- (d) 1000

RRB Group-D - 28/11/2018 (Shift-I)

- If  $X^2 = 841$ , then what will be the value of X?
  - (a) 29
- (b) 41
- (c) 39
- (d) 31

RRB Group-D - 28/11/2018 (Shift-I)

9. The value of  $\sqrt{214} + \sqrt{107} + \sqrt{196}$ 

- (a) 23
- (b) 15
- (c) 24
  - (d) 18

RRB Group-D - 27/11/2018 (Shift-I)

10. Solve the following:

 $\sqrt{(8+2\sqrt{15})(8-2\sqrt{15})}$ 

- (a) 1
- (b) 2
- (c) 3
- (d) 4

RRB Group-D - 27/11/2018 (Shift-III)

- 11. If  $\sqrt{54} + \sqrt{150} = a$ , What will be the value of  $\sqrt{96} + \sqrt{216}$ 
  - (a) 1.20a
- (b) 1.50a
- (c) 1.60a
- (d) 1.25a

RRB Group-D - 16/11/2018 (Shift-I)

- 12. If  $\sqrt{324} = x8$ , then what will the value of x?
  - (a) 3
- (b) 2
- (c) 1
- (d) 4

RRB Group-D - 18/09/2018 (Shift-III)

- 13. If  $\sqrt{3} = 1.732$ , Then what is the value of  $\frac{1}{\sqrt{3}}$ 
  - (a) 0.577
- (b) 2.577
- (c) 1.577

- (d) 0.770

RRB RPF Constable - 22/01/2019 (Shift-I)

- 14. If  $\frac{A}{\sqrt{512}} = \frac{\sqrt{162}}{A}$ , find the value of
  - A.
  - (a) 144
- (b)  $12\sqrt{2}$
- (c) 288
  - (d) 72
  - RRB Group-D 24/10/2018 (Shift-II)
- 15. If  $\frac{x}{\sqrt{243}} = \frac{\sqrt{2187}}{x}$ , and x is positive then what is the value of x?
  - (a) 29
- (b) 27
- (d) 21

RRB Group-D - 12/11/2018 (Shift-II)

- 16. Solve :-  $\frac{\sqrt{4375}}{\sqrt{7}}$  = ?
  - (a) 64
- (b) 25
- (c) 36
- (d) 16

RRB RPF Constable - 22/01/2019 (Shift-I)

- 17. If  $\sqrt{169} = 13$ , then  $(\sqrt{.00000169})$ 
  - (a) 0.0013
- (b) 0.001
- (c) 0.0001
- (d) 0.013

RRB RPF Constable - 24/01/2019 (Shift-III)

- 18.  $(0.14/1.4)^2 (0.11/1.1)^2 + (0.13/1.3)^2 = ?$ 
  - (a) 1.01
- (b) 0.001
- (c) 0.10
- (d) 0.01

RRB RPF SI - 11/01/2019 (Shift-II)

- $\sqrt{\frac{?}{3136}} = \frac{1}{2}$  Find the value of '?'
  - (a) 56
- (b) 784
- (c) 1568
- (d) 28

RRB Group-D - 31/10/2018 (Shift-II)

- 20. What is the square root of  $\frac{882}{1922}$ 
  - 31

RRB Group-D - 18/09/2018 (Shift-II)

- 21. The value of  $\left(-\sqrt{\frac{144}{576}}\right) \times \left(-\sqrt{\frac{144}{576}}\right)$ 
  - (a) 4
- (c) 1
- (d) 0

RRB Group-D - 24/10/2018 (Shift-I)

- 22. The value of  $\sqrt{\frac{256 \times 289}{{}_{4}3}}$ 
  - (a) 4.25
- (b) 17
- (c) 8.50
- (d) 34
- RRB Group-D 27/11/2018 (Shift-I)
- 23. Find the value of  $\frac{\sqrt{0.64}}{\sqrt{0.16}} = ?$ 
  - (b) 8
  - (a) 2

(d) 10 RRB Group-D - 02/11/2018 (Shift-II)

- 24. The value of  $\frac{\sqrt{45} \times \sqrt{20}}{}$ 
  - (a) 9
- (b) 6
- (c) 15
- (d) 5

RRB Group-D - 28/09/2018 (Shift-III)



## **SIMPLIFICATION** PYQ-solved questions

#### 1. $2.09 \div 0.000209 = ?$

- (a) 100000
- (b) 1000000
- (c) 1000
- (d) 10000

RRB Group-D - 07/12/2018 (Shift-III)

#### $1.08 \div 0.000108 =$

- (a) 100000
- (b) 1000
- (c) 1000000
  - (d) 10000 RRB Group-D - 03/12/2018 (Shift-III)

#### $0.00025 \div 12.5 = ?$

- (a) 0.0025
- (b) 0.00002
- (c) 0.0002
- (d) 0.000002

RRB Group-D - 11/12/2018 (Shift-I)

#### 6 kg 5 g = ?

- (a) 6.05 kg
- (b) 0.65 kg
- (c) 6.5 kg
- (d) 6.005 kg

RRB Group-D - 03/10/2018 (Shift-III)

- Solve:  $10^9 \times 10^2 \div 10^3$ 
  - (a)  $10^8$
- (b)  $10^6$

(c)  $10^2$ (d)  $10^5$ 

RRB RPF Constable - 22/01/2019 (Shift-III)

- 6.  $\{20-(25-33)\}$  ÷  $\{-5\times4-(-6)\}+56\div(-6)\}$ 27+13) = ?
  - (a) -2
- (b) -6
- (d) 4

RRB RPF Constable - 20/01/2019 (Shift-I)

- 7.  $\{40 (90 \div 5 \times \overline{16 8} \div 2 \div 3)\} = ?$
- (a) 16
- (b) 28
- (c) 14
- (d) 64

RRB RPF SI - 11/01/2019 (Shift-II)

#### Solve the following.

$$2550 - [510 - \{270 - (90 - 80 + 70)\}]$$

- (a) 2240
- (b) 2230
- (c) 2220
- (d) 2210

RRB Group-D - (20-08-2019 Shift-I)

- $56 \div \frac{1}{3} \left\{ 15 + 12 \left( 9 + 6 \overline{5 + 7} \right) \right\} = ?$ 
  - (a) 9
- (c) 12
- (d) 7

RRB Group-D - 17/09/2018 (Shift-I)

- $-(5+(2-3))+3\frac{1}{2}$
- 11 (c)

RRB Group-D - 23/09/2018 (Shift-I)

11.  $63 - (-3)(-2 - 8 - 4) \div 3 \text{ of } \{5 + (-2)\}$ (-1)} = ?

- (a) -60
- (b) 60
- (c) 65
- (d) 61

RRB Group-D - 23/09/2018 (Shift-I)

- 12.  $72 \div \{27 \{35 (42 45 \div 9 \times 2)\}\}$ 
  - (a) 3
- (b) 8
- (c)
- (d) 4

RRB Group-D - 24/09/2018 (Shift-II)

- 13. If  $T = (93 + 15) \div (3 \times 4) 24 + 8$ , then what will be the value of T?
  - (a) -4
- (b) -7
- (c) -2
  - (d) -5RRB Group-D - 24/09/2018 (Shift-II)

- 14.  $75 \div [35 \{63 (79 54 \div 9 \times 6)\}] = ?$ 
  - (a)  $\overline{5}$
- (b) 3
- (c) 15
- (d) 25

RRB Group-D - 26/09/2018 (Shift-I)

- **15.**  $144 \div |40 \{37 (25 112 \div 7 \times 4)\}|$ 
  - (a)

- (d) 6

RRB Group-D - 28/09/2018 (Shift-II)

- 16. If G =  $(96 \div 12) + 14 \times (12 + 8) \div 2$ , then what will be 1/4th of G?
  - (a) 148
- (b) 37
- 36
- (d) 38

RRB Group-D - 03/10/2018 (Shift-II)

- $\frac{1}{8}$ {11+16-(10+7- $\overline{6+8}$ )}]=?
  - 6 (a)
- (b) 9
- (c) 18
- (d) 3
- RRB Group-D 05/10/2018 (Shift-II)
- 18.  $74 [85 \div \{49 (41 3^5 \div 9 \times 3)\}] = ?$ 
  - (a) 59
- (b) 79
- (d) 69
- RRB Group-D 19/09/2018 (Shift-III)

#### 19. Simplify:

- $25+15-(51)+(4\times15 \text{ of } 17) \div 20+\overline{6-2}=?$
- (a) 45
- (b) 44
- (d) -45
  - RRB Group-D 26/10/2018 (Shift-II)

#### 20. Find the following:

- $10 + \{26 15 \times (20 5 \div 2 \times 7 5)\} = ?$
- (a) 189
- (b) -198
- (c) 198
- (d) -189

RRB Group-D - 01/10/2018 (Shift-I)

21. Find the value of the following equation:

$$\frac{(469+144)^2-(469-144)^2}{2(469\times144)}=?$$

- (a) -2
- (b) -1
- (c) 1
- (d) 2

RRB RPF Constable - 22/01/2019 (Shift-II)

22. The value of

$$\{(0.98)^3 + (0.02)^3 + 3 \times 0.98 \times 0.02 - 1\}$$

- (a) 1.09
- (b) 1.98
- (d) 1.562

(c) 0 RRB Group-D - 18/09/2018 (Shift-I)

- 23. Find the value of  $73 \times 73 + 42 \times 42$  $-2 \times 73 \times 42$ 
  - (a) 961
- (b) 676
- (c) 981
- (d) 861
- RRB RPF-SI 16/01/2019 (Shift-III)
- 24. Solve the following:

$$\frac{(0.54 \times 0.540 - 0.460 \times 0.460)}{(1 - 0.920)} = ?$$

- (a) 0.1
- (c) 1
- (b) 2
- (d) 0.01 RRB Group-D - 10/10/2018 (Shift-II)
- 25.  $23 \times 31 = 713$ , then  $0.00713 \div 3.1 = ?$
- (a) 0.023
- (b) 0.0023
- (d) 2.3 (c) 0.23 RRB Group-D - 24/09/2018 (Shift-II)
- 26. If  $\frac{0.5 0.1x}{1.3 0.8x}$  =0.2, then x = ?
  - (a) -1
- (b) -1
- (c)
- (d) 4
- RRB Group-D 24/09/2018 (Shift-II) 27. Solve the following equation to find the value of x.

$$\frac{(x-5)}{3} - \frac{(x-2)}{4} = \frac{7}{3}$$

- (a) 42
- (b) 60
- (d) 52 56 (c) RRB Group-D - 10/10/2018 (Shift-II)
- 28. If  $\frac{1120}{7}$  = 80, then x = ?
  - (a) 225
- (b) 196
- (c) 125
- (d) 336
- RRB Group-D 24/09/2018 (Shift-I)

## LCM & HCF PYQ-solved questions CHAPTER

- 1. Find the smallest number from which, if 6 is reduced then, it is completely divisible by 12, 15, 20 and 27.
  - (a) 542
- (b) 540
- (c) 546
- (d) 500

RRB Group-D - 01/10/2018 (Shift-I)

- 2. Find the least number, which divided by 16, 24, 36 and 54, leaves remainder 12, 20, 32 and 50 respectively?
  - (a) 432
- (b) 444
- (c) 428
- (d) 452

RRB Group-D - 11/01/2018 (Shift-III)

- The largest five digit number, which divided by 5, 6 and 7, gives remainder 2 in each case. What is the number?
  - (a) 99958
- (b) 99972
- (c) 99858
- (d) 99962

RRB RPF Constable - 19/01/2019 (Shift-II)

- What is the HCF of 148 and 370?
  - (a) 148
- (b) 37
- (c) 74
- (d) 2

RRB RPF Constable - 20/01/2019 (Shift-I)

- The value of half of the HCF of 36 and 144 is:
  - (a) 144
- (b) 18
- (c) 36
- (d) 72

RRB Group-D - 17/09/2018 (Shift-III)

- Find the HCF of  $(5^3 \times 4^3)$ ,  $(3^5 \times 5^2 \times 10^4)$  $4^4$ ) and  $(3^2 \times 5 \times 4^3)$ .
  - (a) 340
- (b) 328
- (c) 230
- (d) 320

RRB Group-D - 16/11/2018 (Shift-I)

The number of students in a school in 4th, 5th and 6th, grade was 188, 282 and 423. If the each class is divided into sections and each section had the same number of students, so what was the total minimum number of sections of these three classes?

- (a) 20
- (b) 18
- (c) 19
- (d) 17

RRB Group-D - 12/11/2018 (Shift-III)

- 8. Find the largest possible length that can be used to measure the length of 2m 76cm, 5m 52cm and 11m 96cm.
  - (a) 92 cm
- (b) 11.96 cm
- (c) 92 m
- (d) 1196 cm

RRB RPF SI - 12/01/2019 (Shift-III)

- What is the largest number by which dividing 1657 and 2037, gives remainder 6 and 5 respectively?
  - (a) 150
- (b) 125
- (c) 127
- (d) 130

RRB Group-D - 05/10/2018 (Shift-I)

- 10. What is the largest number by which, dividing 63, 77 and 98, gives remainders 3, 5 and 2 respectively?
  - (a) 10
- (b) 12
- (c) 6
- (d) 8

RRB Group-D - 05/11/2018 (Shift-II)

- 11. Find the HCF and the LCM of 570 and 1425.
  - (a) 285, 2750
- (b) 285, 2850
- (c) 289, 2650
- (d) 185, 2850

- RRB RPF Constable 19/01/2019 (Shift-II)
- 12. The HCF and LCM of two numbers are 12 and 720 respectively. How many pairs are possible of these numbers?
  - (a) 3
- (b) 4
- (c) 2
- (d) 1

RRB RPF SI - 05/01/2019 (Shift-I)

- 13. The LCM of two numbers is 42 times their HCF. The sum of LCM and HCF is 602. If one of them is 84, then find the other number.
  - (a) 98
- (b) 78
- (c) 87
- (d) 89

RRB Group-D - 15/11/2018 (Shift-II)

- 14. The division of two numbers gives 6 and their product is 96. Find the product of the sum and the difference of these numbers.
  - (a) 540
- (b) 560
- (c) 592
- (d) 9180

RRB Group-D - 24/10/2018 (Shift-II)

- 15. Which is the second greatest factor of 56 and 84?
  - (a) 23
- (b) 18
- (c) 14

(d) 24 RRB Group-D - 26/10/2018 (Shift-III)

- 16. What is the smallest number with 7 factors exactly?
  - (a) 100
- (b) 36
- (c) 64
- (d) 16

RRB Group-D - 03/12/2018 (Shift-III)

- 17. Find the largest 3-digit number that is completely divisible by 10, 8 and 12.
  - (a) 940
- (b) 960
- (c) 980
- (d) 999

RRB Group-D - 26/09/2018 (Shift-III)

- 18. Which of the following is the largest such number, which leaves remainder 9 and 20, when divides 105 and 164 respectively?
  - (a) 36
- (b) 48
- (c) 24
- (d) 96

RRB Group-D - 22/10/2018 (Shift-II)

- 19. Which is the largest such number which leaves remainder 2 and 3, when divides 258 and 323 respectively?
  - (a) 40
- (b) d24
- (c) 64
- (d) 132

RRB Group-D - 30/10/2018 (Shift-III)

- 20. Find the number between 300 and 500 which will be exactly divisible by 6, 8, 10 and 12:
  - (a) 320
- (b) 340
- (c) 490
- (d) 360

RRB Group-D - 23/10/2018 (Shift-I)

# PERCENTAGE PYQ-SOLVED QUESTIONS

- 1. 62% population of a town is educated. If the number of uneducated people in the town is 24567, then what is the number of educated people?
  - (a) 41823
- (b) 64650
- (c) 35688
- (d) 40083

RRB Group-D - 08/10/2018 (Shift-I)

- 2. What will be the population of a town after two years, if the present population is 1,20,0000 and population growth rate is 4%?
  - (a) 1297920
- (b) 1207920
- (c) 1300000
- (d) 1297820

RRB Group-D - 24/09/2018 (Shift-II)

- 3. The population of a town is growing at a rate of 5% per year. If the present population of the town is 1,85,220, then what was the population of the town one year ago?
  - (a) 1,76,000
- (b) 1,70,500
- (c) 1,76,400
- (d) 1,76,200

RRB Group-D - 16/10/2018 (Shift-I)

- 4. The population of a town is 8000. If the men are increased by 8% and women by 12%, then the population will be 8680. Find the number of women in the town.
  - (a) 2500
- (b) 1500
- (c) 2000
- (d) 1000

RRB Group-D - 30/10/2018 (Shift-II)

- 5. In 2018, the population of a colony became 54000, which is increasing at a rate of 5% per year. Find the population of the colony two years ago?
  - (a) 45980
- (b) 48980
- (c) 49500
- (d) 50000

RRB Group-D - 09/10/2018 (Shift-I)

- 6. The number of people in a town increased by 3% at the beginning of each year. If the present population of the town is 30,00,000, then the population after three years will be:
  - (a) 3277181
- (b) 3217881
- (c) 3278181
- (d) 3281781

RRB Group-D - 02/11/2018 (Shift-II)

7. If Anju scored 68 out of 80 in Hindi, 46 out of 60 in Mathematics, 74 out of 90 in Science, and 35 out of 45 in English, then in which subject did Anju score the maximum percentage of marks?

- (a) Mathematics (b) Hindi
- (c) English (d) Science RRB RPF SI - 05/01/2019 (Shift-II)
- 8. In an examination, 40 out of 85 students scored less than 50%. The ratio of the number of students, scoring less than 50% to the number of students scoring

50% more marks is:

- (a) 8:9
- (b) 3:4
- (c) 9:8
  - 3 (d) 5:7

RRB RPF Constable - 18/01/2019 (Shift-I)

- 9. The percentage of obtained marks should be 42% to pass an exam. If the maximum marks is 450, then how many marks must be obtained to pass the exam?
  - (a) 201
- (b) 168 (d) 189
- (c) 210

RRB Group-D - 15/11/2018 (Shift-III)

- 10. In a test Chitra obtained 58.5 marks that was also equivalent to obtaining 78% marks. How many marks was the test out of?
  - (a) 85
- (b) 65
- (c) 75
- (d) 80

RRB Group-D - 19/09/2018 (Shift-II)

- 11. In a class 5% of students are absent on some day. If the number of present students is 38, then what is the total number of students in the class that day?
  - (a) 40
- (b) 50
- (c) 33
- (d) 45

RRB Group-D - 20/09/2018 (Shift-III)

- 12. Pranjoy obtained 272 marks in an exam, which was equal to get 64% marks. How many marks was the exam?
  - (a) 425
- (b) 475
- (c) 450
- (d) 440

RRB Group-D - 26/09/2018 (Shift-I)

13. The following table shows the results of the students participated in the exam. What is the percentage of the passed students?

Result	Number of students
Pass	150
Fail	100

- (a) 40%
- (b) 60%
- (c) 50%
- (d) 30%

RRB Group-D - 30/10/2018 (Shift-III)

- 14. A candidate obtains 20% marks and fails by 35 marks, while another candidate obtains 50% marks, which is 32 more than the passing marks. What are the maximum marks of the exam?
  - (a) 250
- (b)  $\frac{670}{3}$
- (c) 450
- (d) 500

RRB Group-D - 30/10/2018 (Shift-III)

- 15. A student had got few marks from maximum marks probably. These marks were 75%. If one more question would be added of one mark in the exam then his obtained marks percentage would have 76%. What were the initial maximum marks of the exam?
  - (a) 24
- (b) 25
- (c) 20
- (d) 19

RRB Group-'D' - 07/12/2018 (Shift-I)

- 16. The minimum passing marks in an exam are 38%. If maximum marks are 750, then how many marks a student need to pass the exam?
  - (a) 285
- (b) 304
- (c) 323
- (d) 266

 $RRB\ Group\text{-}D\text{--}05/12/2018\ (Shift\text{-}III)$ 

- 17. A exam was organized for class 10<sup>th</sup> students, 96% students passed and 50 failed. How many students were present in the exam?
  - (a) 1600
- (b) 1400
- (c) 1200
- (d) 1250
- RRB Group-D 15/10/2018 (Shift-III)



## SIMPLE INTEREST **PYQ-**solved questions

- 1. Find the simple interest from 5 February 2017 to 19 April 2017 for an amount of ₹5000 at the rate of 6.25% annual interest.
  - (a) ₹62.50
- (b) ₹48.50
- (c) ₹64
- (d) ₹80

RRB RPF SI - 10/01/2019 (Shift-I)

- The interest earned on ₹3680 at 4% simple interest per annum for 2.5 years will be.
  - (a) ₹368
- (b) ₹92
- (c) ₹184
- (d) ₹274

RRB RPF Constable - 17/01/2019 (Shift-III)

- What will be the interest received in 2 years and 3 months on ₹2500 at the rate of 6% per annum?
  - ₹423.50
- (b) ₹445
- ₹337.50 (c)
- (d) ₹375

RRB Group-D - 05/10/2018 (Shift-I)

- How much interest will be received on the amount of ₹1600 in 10 years, if the rate of interest is 7.25% per annum?
  - (a) ₹1240
- (b) ₹1160
- ₹1220
- (d) ₹1180

RRB Group-D - 20/09/2018 (Shift-I)

- Divide ₹6,600 into two parts such that the simple interest received on the first part at the rate of 10%per annum for 3 years is equal to the simple interest received on the second part at 9% per annum for 4 years.
  - ₹3600, 3000 (a)
  - (b) ₹4000, 2600
  - ₹5000, 1600 (c)
  - ₹6000,600

RRB Group-D - 31/10/2018 (Shift-II)

- Sarathi deposited ₹3125 in a bank on which 8% simple interest was payable annually by the bank. If sarathi kept the money in the bank for 5 years, how much interest will be earn?
  - (a) ₹1,290
- ₹1,250 (b)
- ₹1,240
- (d) ₹1,280

RRB Group-D - 18/09/2018 (Shift-II)

- What will be the interest on ₹4600 in 5 years at the rate of 4.5% per annual simple interest?
  - (a) ₹1,020
- (b) ₹1,025

(d) ₹1,045 (c) ₹1,035 RRB Group-D - 28/09/2018 (Shift-III)

- An amount of ₹3250 at the rate of 5.25% per annum simple interest will earn an interest of \_\_\_\_ for 8 years.
  - ₹1,425 (a)
- (b) ₹1,395
- ₹1,365
- (d) ₹1,465

RRB Group-D - 03/10/2018 (Shift-III)

- What will be the amount received in 6 years on ₹1,640 at the rate of 7.5% simple interest per annum.
  - ₹750
- ₹742
- (b) ₹748 (d) ₹738

RRB Group-D - 25/09/2018 (Shift-I)

- 10. A fixed sum of money was invested for 5 years at a fixed rate of simple interest. If had been invested at a 10% higher rate, it would have gained ₹2000 more. What was the principle invested?
  - (a) ₹3500
- (b) ₹4000
- (c) ₹4500
- (d) ₹5000

RRB RPF Constable - 22/01/2019 (Shift-II)

- 11. A sum at the end of  $3\frac{3}{4}$  years at 6% simple interest per annum, vields a total amount of ₹2940 is received. What was the amount invested?
  - (a) ₹2,350
- (b) ₹2,400
- ₹2,550
- (d) ₹2,600
- RRB RPF SI 11/01/2019 (Shift-III)
- 12. The interest earned on the money invested for 6 years at a simple interest rate of 9.5% per annum was ₹456. What was the amount invested?
  - (a) ₹750
- (b) ₹775
- (c) ₹800
- (d) ₹850

RRB RPF Constable - 19/01/2019 (Shift-II)

- 13. A sum of money becomes ₹457 in 5 years and ₹574 in 10 years at the same simple interest rate. Find the value (in rupees) of the sum.
  - 500 (a)
- (b) 280
- 340
- (d) 420

RRB Group-D - 06/12/2018 (Shift-II)

14. On a certain sum, simple interest for  $\frac{5}{2}$  years at an annual rate of

- 12% is ₹50 less than the interest on the same sum for  $\frac{7}{2}$  years at an annual rate of 10%. Find the sum.
- (a) ₹1,500
- (b) ₹1,000
- ₹2,000
- (d) ₹1,200

RRB Group-D - 08/12/2018 (Shift-II) 15. At the rate of 8% simple interest, a amount becomes ₹924 in

- years. What amount was deposited initially.
- (a) ₹626
- (b) ₹650
- (c) ₹600
- (d) ₹675

RRB Group-D - 03/10/2018 (Shift-III)

- 16. The difference between the interest on a sum of money at 12% per annum simple interest for 4 years and the same sum at 9% per annum simple interest for 5 years is ₹412.50 What is the amount?
  - (a) ₹13,900
- (b) ₹14,630
- ₹14,080 (c)
- (d) ₹13,750

RRB Group-D - 03/12/2018 (Shift-II)

- 17. A person has ₹2000. He gives a portion of the amount at 5% simple interest and the remaining amount at 4% simple interest. After one year he earns ₹96. What amount did he given at 4% interest?
  - (a) ₹500
- (b) ₹480
- (c) ₹400
- (d) ₹420 RRB Group-D - 26/10/2018 (Shift-II)
- 18. An amount invested for 2 years 9 months at the rate of 8% simple interest per annum became ₹915 at the end of the period. How much
  - amount was invested initially? ₹725
    - (b) ₹700
  - ₹675
- (d) ₹750

RRB Group-D - 05/11/2018 (Shift-II)

19. The interest received in 3.5 years on the amount invested at 16% simple interest rate per annum is equal to the interest received on investing another amount at 12.6% simple interest per annum for 5 years. What is the ratio of both the invested amounts?

# CHAPTER 8 CHAPTER 8 PYQ-SOLVED QUESTIONS

- 1. Mohit invested ₹10000 in two different schemes NSC and PPF at an annual compound interest rate of 14% and 11% respectively. If the total amount of interest received in 2 years is ₹2726, then what was the amount invested in PPF?
  - (a) ₹5000
- (b) ₹4000
- (c) ₹6000
- (d) ₹7000

RRB RPF SI - 06/01/2019 (Shift-II)

- 2. A sum of ₹2000 at 40% per annum compounded annually. What is the interest for the third year at compound interest.
  - (a) ₹1500
- (b) ₹1600
- (c) ₹1568
- (d) ₹1750

RRB RPF Constable - 18/01/2019 (shift-III)

- 3. A woman invested ₹200 at the begining of each year at a 5% compound interest per annum. At the end of the second year her total investment amount will be.
  - (a) ₹431
- (b) ₹430.5
- (c) ₹435
- (d) ₹430

RRB RPF SI - 11/01/2019 (Shift-I)

- 4. A person borrowed a sum of money at 9% simple interest and invested it at 10% compound interest for 3 years. After 3 years he received profit of ₹1952. How much money did he borrow?
  - (a) ₹30000
- (b) ₹32000
- (c) ₹33000
- (d) ₹32543

RRB Group-D - 06/12/2018 (Shift-III)

- 5. The money invested for two years which is to be compounded annually, at the rate of 20% per annum. At maturity it becomes ₹324. What was the initial amout invested.
  - (a) ₹240
- (b) ₹200
- (c) ₹250
- (d) ₹225

RRB Group-D - 05/12/2018 (Shift-II)

6. Shyam deposits ₹x for 2 years at 8% per annum compounded interest annually, which is ₹72900. Then what is the value of x?

- (a) ₹60,500
- (b) ₹62,000
- (c) ₹60,000
- (d) ₹62,500

RRB Group-D - 04/10/2018 (Shift-II)

- 7. What will be the amount of ₹5000 after 2 years. When there is an annual compound interest at the rate of 9% per annum.
  - (a) ₹5,940
- (b) ₹9,950
- (c) ₹5,970
- (d) ₹5,936

RRB Group-D - 10/10/2018 (Shift-III)

- 8. Mr. Marthi invested ₹16000 in a scheme. How much money will he get when he becomes an adult if he invests it for 9 months at a compound interest rate of 20% per annum.
  - (a) ₹18,523
- (b) ₹18,521
- (c) ₹18,524
- (d) ₹18,522

RRB RPF Constable - 17/01/2019 (Shift-I)

- 9. What will be the amount of ₹3000 after 2 years if interest is compounded annually at 12 percent per annum interest rate?
  - (a) ₹3,763
- (b) ₹3,773
- (c) ₹3,873
- (d) ₹3,766

RRB RPF Constable - 19/01/2019 (Shift-I)

- 10. Manoj invested ₹15000 in a fixed deposit scheme for 3 years, at 5% per annum compounded annually. What amount will Manoj get on maturity of fixed deposit.
  - (a) ₹13,764.37
- (b) ₹17,463.37
- (c) ₹17,643.37
- (d) ₹17,364.37

RRB Group-D - 26/10/2018 (Shift-II)

- 11. Mani deposits ₹8000 in a bank on which he gets 5% annual interest. If the interest is calculated annually, then after two years, what will be the amount?
  - (a) ₹8500
- (b) ₹8700
- (c) ₹8820
- (d) ₹8600
- RRB Group-D 09/10/2018 (Shift-II)
- 12. If the interest is calculated annually, then the amount of ₹2000 will become approximately after 3 years at the rate of 10% compound interest per annum?

- (a) ₹2510
- (b) ₹2662
- c) ₹2520
- (d) ₹2726

RRB Group-D - 09/10/2018 (Shift-II)

- 13. If the interest is compounded half yearly basis, find the compound interest on the sum of ₹18500 at 40% per annum for 18 months.
  - (a) ₹13468
- (b) ₹16280
- (c) ₹16000
- (d) ₹15469

RRB RPF Constable - 25/01/2019 (Shift-I)

- 14. Rajnan borrows ₹7500 at an annual compound interest rate of 4%. What will be the compound interest for 2 years while the interest is compounded annually?
  - (a) ₹612
- (b) ₹8112
- (c) ₹8121
- (d) ₹621

RRB RPF SI - 11/01/2019 (Shift-II)

- 15. Find the compound interest on ₹15,625 for 1 year 6 months at 8% per annum, compound interest when compounded half-yearly?
  - (a) ₹1,951
- (b) ₹1,950
- (c) ₹1,900
- (d) ₹1,952

RRB RPF SI - 12/10/2018 (Shift-III)

- 16. What will be the compound interest on ₹31250 at 8% per annum for 2 3/4 years?
  - (a) ₹7300
- (b) ₹7800
- (c) ₹7337
- (d) ₹7387

RRB Group-D - 22/09/2018 (Shift-I)

- 17. A sum of money invested at a 4% per annum compound interest becomes ₹78030 at the end of 1 year, while the interest is compounded half yearly. The amount is-
  - (a) ₹76,000
- (b) ₹71,400
- (c) ₹72,500
- (d) ₹75,000

RRB Group-D - 04/12/2018 (Shift-III)

18. The interest received on a fixed amount at a rate of 10% in a year is ₹400. Compound interest for the same amount at the same rate and for the same period if the interest is compounded half yearly will be-



## PROBLEMS BASED ON AGES **PYQ-SOLVED QUESTIONS**

- 1. Six years ago, the ratio of the ages of two persons P and Q was 3:2 After four years, ratio of their ages will be 8:7 what is the age of P?
  - (a) 10 years
- (b) 12 years
- (c) 14 years
- (d) 8 years

RRB RPF Constable - 19/01/2019 (Shift-II)

- 2. The ratio of the ages of Deepika and her mother is 3:11. After 3 years the ratio of their ages becomes 1:3. What is the age of Deepika.
  - (a) 15 years
- (b) 9 years
- (c) 13 years
- (d) 11 years

RRB RPF SI - 11/01/2019 (Shift-I)

- The ratio of present ages of X and Y is 3: 4. Five years ago the ratio of their ages was 5:7. Then what is the present age of Y.
  - (a) 50 years
- (b) 60 years
- (c) 30 years
- (d) 40 years

RRB RPF Constable - 17/01/2019 (shift-I)

- The ratio of the ages of the father, mother and daughter is 22:20:9. After 10 years ratio this will be 27: 25: 14. Find the present age of the mother.
  - (a) 21
- (b) 26
- (c) 27
- (d) 40

RRB Group-D - 07/12/2018 (Shift-III)

- 5. 6 years ago, the ratio of ages of Saina and Sagar was 6:5 therefore in the next four years the ratio of their ages will be 11:10. What is the present age of Sagar?
  - (a) 14 years
- (b) 16 years
- (c) 12 years
- (d) 18 years

RRB Group-D - 31/10/2018 (Shift-I)

- 6. S is 7 years younger to R. If the ratio of their ages is 7:9, then what is the age of S.
  - (a) 16 years
- (b) 28 years
- (c) 18 years
- (d) 24.5 years

RRB Group-D - 26/09/2018 (Shift-I)

The sum of the ages of 6 persons A, B, C, D E and F working in the same company is 105 years. There

is a difference of 5 years between the birth of all of them. What is the age of the eldest person?

- 20 years
- (b) 25 years
- (c) 30 years
- (d) 15 years

RRB Group-D - 03/10/2018 (Shift-II)

- The ratio of the present ages of X and Y is 5:4. Three years later from now, the ratio of their ages will be 11:9. What is the present age of Y.
  - (a) 26 years
- (b) 22 years
- (c) 27 years
- (d) 24 years

RRB Group-D - 25/09/2018 (Shift-II)

- The present ages of S and A are in the ratio of 5 : 4 respectively. Therefore after three years, the ratio of their ages will be 11:9 respectively. What is the present age of S?
  - (a) 24
- (b) 30 (d) 27
- (c) 40

RRB Group-D - 10/10/2018 (Shift-I)

- 10. Aman is as younger than as Vinay and he is older than Arun. If the sum of the ages of Arun and Vinay is 40 years, then what is the age of Aman?
  - (a) 20 years
- (b) 22 years
- (c) 25 years
  - (d) 30 years

RRB Group-D - 05/12/2018 (Shift-I)

- 11. The ratio of present ages of J and K is 11:6. After 5 years the ratio of their ages will be 12:7. What is the present age of K.
  - (a) 30 years
- (b) 60 years
- (c) 55 years
- (d) 35 years

RRB Group-D - 05/12/2018 (Shift-II)

- 12. The ratio of present age of Rekha and Rashmi is 7:4. Three years later from now the ratio of their ages will be 8:5. What is the present age of Rashmi (in years)?
  - (a) 15
- (b) 9
- (c) 8
- (d) 12

RRB Group-D - 12/11/2018 (Shift-I)

13. The ratio of present age of Meena and Seena is 4:3. After 6 years age

- of Meena will be 26 years. What is the present age of Seena?
- (a) 12 years
- (b) 19 years 6 months
- (c) 15 years
- (d) 21 years

RRB Group-D - 12/11/2018 (Shift-III)

- 14. Tom's father is three times older than Tom. 10 years ago, the age of Tom's father was 7 times that of his age. What is the Tom's present age?
  - (a) 15 years
- (b) 16 years
- (c) 14 years
- (d) 17 years

RRB RPF SI - 11/01/2019 (Shift-III)

- 15. Three times of my age before three years subtracting from three times of my age after three years, then my present age is found. What is my present age.
  - (a) 21 years
- (b) 15 years
- 24 years
- (d) 18 years

RRB RPF SI - 06/01/2019 (Shift-II)

- 16. A father's age is three times of his son's age and the son's age is 3/8 of his mother's age. If the difference between his mother's age and the father's age is 4 years, then find the age of the son.
  - (a) 10 years
- (b) 9 years
- (c) 11 years
- (d) 12 years

RRB RPF Constable - 24/01/2019 (shift-III)

17. 17 years later from Chetna's age will be twice as Mahim's age. Before 5 years from today Mahim's age was one year less than  $\frac{1}{3}$  part of Chetna's age. What

is the present age of Chetna?

- (a) 65 years
- (b) 63 years
- (c) 67 years
- (d) 61 years

RRB RPF SI - 05/01/2019 (Shift-II)

18. The sum of the present ages of the two cousins is 54 years. Before 11 years, the elder brother was three times old as the younger one. What is the present age of the elder brother.

# AVERAGE PYQ-SOLVED QUESTIONS

1. The average of 5 consecutive even numbers is 40. Find the smallest number among these numbers.

(a) 35

(b) 36

(c) 44

(d) 48

RRB RPF Constable - 19/01/2019 (Shift-II)

2. The average marks of 3 students of a class in an examination is 18 out of 25. Two new students appeared in the exam. What is the minium marks which can be obtained by a new student and it is less than other students and the total average of all the five students increases to 20?

(a) 23

(b) 20

(c) 21

(d) 22

RRB RPF SI - 06/01/2019 (Shift-II)

- 3. The number of students of three groups of a college  $G_1$ ,  $G_2$  and  $G_3$  is 20, 40 and 60 respectively. The average marks obtained by group  $G_1$ ,  $G_2$  and  $G_3$  is 50%, 60% and 70% respectively. What is the average marks of all the students of the college?
  - (a) 62%

(b) 61%

(c) 60%

(d) 63%

RRB Group-D - 03/10/2018 (Shift-II)

- 4. The average marks otained by Reena in 16 exams is 26. The average marks obtained by Shreya till now is 24, but she has taken only 12 tests till now. What is the average marks that Shreya has to be obtained in the remaining 4 exams to perform as well as Reena.
  - (a) 28

(b) 32

(c) 30

(d) 26

RRB Group-D - 06/12/2018 (Shift-III)

- 5. In a class there were 9 boys and some girls. In a test, the mean score obtained by the boys was 13 while that obtained by the girls was 15. If the overall average was 14.28, what was the total number of students in the class?
  - (a) 24

(b) 25

(c) 26

(d) 27

RRB Group-D - 18/09/2018 (Shift-I)

6. The average of the marks of three students in an examination of 25 marks is 16. Two new students appeared in the examination. In order to make the average marks of all the five students is 19, what is the minimum marks that the who got less marks than the second new student must get?

(a) 22

(b) 21

(c) 20

(d) 23

RRB Group-D - 01/11/2018 (Shift-II)

7. The average marks obtained in a test of 18 boys in a class is 16, while the average of the total 30 students in the class is 18.1 What is the average of marks obtained by the girls?

(a) 21.25

(b) 20.5

(c) 20.75

(d) 21

RRB Group-D - 25/09/2018 (Shift-II)

8. The average marks of three students in an examination out of 45 marks is 38. New two students appeared in the examination. What is the lowest makrs than can be obtained by the new student who has scored less than the second new students, so that the total average of the marks of five students becomes 40?

(a) 41

(b) 42

(c) 40

(d) 43

RRB Group-D - 19/09/2018 (Shift-II)

9. The average marks obtained by Raghuveer in 12 tests is 25. Rumela's average so far is 23 marks, but he has appeared in only 8 tests. What is the average score that Rumela has to earn in the remaining 4 tests to be equal to Raghuveer's average?

(a) 27

(b) 29

(c) 26

26 (d) 28 RRB Group-D - 22/09/2018 (Shift-I)

10. A group of five students took an examination. Another student joined the group after taking the examination later by including

his marks, the average marks of the group increased by 2 marks. This student has scored ----marks more than the average marks without including him.

(a) 18

(b) 14

(c) 12

(d) 15

RRB Group-D - 26/09/2018 (Shift-I)

11. There were 28 boys and some girls in a class. In an exam the average marks obtained by boys was 12.5. While the average marks obtained by girls was 14.5 If the total average was 13.1 then what was the total no. of students in the class?

(a) 42

(b) 40

(c) 44

(d) 38

RRB Group-D - 03/10/2018 (Shift-I)

12. In a class of 40 students the ratio of boys and girls is 7:3. Average marks of boys is 65 and the average marks of the girls is 72. What is the average marks of the whole class?

(a) 67.1

(b) 68.4

(c) 68.3

8.3 (d) 68.2 RRB Group-D - 31/10/2018 (Shift-II)

13. In a class of 45 students. The ratio of boys and girls is 4:5. The average marks of boys is 75 and that of girls is 82. What is the approximate average marks of the whole class?

(a) 78.6

(b) 78.5

(c) 78.9

(d) 79.0

RRB Group-D - 05/11/2018 (Shift-I)

14. The average test score of 18 boys in a class was 15, while the over all average of all the 25 students of the class was 16.12. What was the average score of the girls?

(a) 18.5

(b) 19.5

(c) 19

(d) 18.8

RRB Group-D - 01/11/2018 (Shift-II)

15. The average marks obtained by a students in 5 subjects is 75. Average of his first two subjects



## **RATIO & PROPORTION PYQ-SOLVED QUESTIONS**

- 1. Find the ratio of 3 days with 30 hours
  - (a) 7:6
- (b) 12:5
- (c) 6:7
- (d) 5:12

RRB RPF Constable - 19/01/2019 (Shift-II)

- A bag contained red, green and pink tokens. The ratio between red and green tokens was 15:32 while the ratio between pink and red tokens was 18: 25. What was the ratio between green and pink tokens?
  - (a) 80:27
- (b) 192:125
- (c) 16:9
- (d) 25:28

RRB RPF SI - 05/01/2019 (Shift-II)

- The ratio of the number of marbles that Tulip and Devansh had was 7:9 while the ratio of the number of marbles that Sheetal and Devansh had was 7:15 find the ratio of the number of marbles available with Tulip and Sheetal.
  - (a) 5:3
- (b) 5:7
- (c) 7:5
- (d) 2:3

RRB RPF Constable - 17/01/2019 (Shift-III)

- If a:b=32:35 and b:c=21:32. Then a:c?
  - (a) 1:1
- (b) 5:7
- 3:5 (c)
- (d) 5:3

RRB Group-D - 03/10/2018 (Shift-I) Two numbers are 30% and 60%

- higher than the third number respectively. What is the ratio of both the numbers?
  - (a) 14:13
- (b) 16:13
- 22:23
- (d) 13:16

RRB Group-D - 10/10/2018 (Shift-II)

- The ratio of Sand and Macadam in a mixture is 41:30. While the mixture of Macadam and cement is 6:7. What is the ratio of sand and cement in the mixture?
  - (a) 8:6
- (b) 11:7
- (c)
- (d) 41:35

RRB Group-D - 16/10/2018 (shift-I)

7. Red, green and pink tokens are kept in a bag, the ratio of red and green tokens is 5:11 while the ratio of pink and red tokens is 7:15. What will be the ratio of green and pink tokens?

- (a) 77:75
- (b) 11:7
- 33:7
- (d) 75:77

RRB Group-D - 25/09/2018 (Shift-I)

If A : B = 5 : 8 and B : C = 18 : 25then find A: C.

- (a) 8:5
- (b) 9:20
- (c) 5:8
- (d) 20:9

RRB Group-D - 09/10/2018 (Shift-I)

- If the ratio of a: b is 45:56 and the ratio of b: c is 16:35, then what is the ratio of a:c?
  - (a) 9:7
- (b) 18:49
- (c) 7:2
- (d) 7:9

RRB Group-D - 01/12/2018 (Shift-II)

- 10. Suraj's amount is 4 times that of Ravi's amount. Ravi's amount is 16 times the amount of Aditya's amount. What is the ratio of Aditya's and Suraj's amount?
  - (a) 64:1
- (b) 1:64
- 1:24

(d) 1:16 RRB Group-D - 11/12/2018 (Shift-II)

- 11. If a:b=2:3 and a:c=10:21, then what is b:c?
  - (a) 5:7
- (b) 15:14
- (c) 14:15
- (d) 7:5
- RRB Group-D 26/10/2018 (Shift-II)
- 12. If  $a:b=\frac{3}{2}:\frac{7}{3}$  and  $b:c=\frac{1}{5}:\frac{1}{7}$ Then find a:b:c?

  - (a) 14:9:10
- (b) 4:5:7
- (c) 9:14:10
- (d) 10:9:14 RRB Group-D - 26/09/2018 (Shift-II)
- 13. a:b=7:9, and b:c=5:11. Then find a:b:c?
  - (a) None of these
  - (b) 99:45:35
  - (c) 45:35:99
  - (d) 35:45:99

RRB Group-D - 11/10/2018 (Shift-III)

- 14. On dividing of ₹3900 in between
  - L, K and J by the ratio of  $\frac{1}{2}:\frac{1}{3}:\frac{1}{4}$  what amount will k get?
  - (a) ₹1,450
- (b) ₹30
- (c) ₹1,200
- (d) ₹900

RRB RPF Constable - 18/01/2019 (shift-III)

15. In an alloy of German Silver the ratio of Copper and Zinc was

- 21:16, while the ratio of Nickel and Zinc was 7:24. What was the ratio of Copper, Zinc and Nickel in the alloy?
- (a) 63:48:14
- (b) 21:6:7
- (c) 17:21:4
- (d) 68:28:21

RRB Group-D - 28/09/2018 (Shift-II)

- 16. In an alloy of German Silver the ratio of Copper and Zinc was 19:6 while the ratio of Nickel and Zinc was 7:4. Then what was the ratio of Copper, Zinc and Nickel?
  - (a) 19:44:4
- (b) 19:24:7
- (c) 38:12:21
- (d) 133:42:24
- RRB Group-D 04/10/2018 (Shift-II)
- 17. The ratio of Copper, Zinc and Nickel in German Silver is 4:3:2. How many kilograms of Zinc should be added to this metal of 54 kg so that the new ratio becomes 2:5:1.
  - (a) 50
- (b) 48
- 36 (c)
- (d) 42

RRB Group-D - 11/12/2018 (Shift-II)

- 18. The ratio of two positive integer is 3:4. Their sum is 70, how much should be added to each integer so that their ratio become 5:6?
  - (a) 10
- (b) 20
- 30 (c)
- (d) 40
- RRB RPF SI 12/01/2019 (Shift-III)
- 19. The ratio of two number is 3:5, If each number is increased by 10, the ratio become 5:7 find the smallest number?
  - (a) 8
- (b) 12
- (c) 15
  - (d) 18 RRB RPF SI - 11/01/2019 (Shift-I)
- 20. The salary of Charan and Rajat is in the ratio of 5:4 If the salary of each is increased by 3,000 then their new ratio become 6:5. What is salary of Charan.
  - ₹15,000
- ₹12,000
- (c) ₹8,000
- (d) ₹20,000
- RRB RPF Constable 20/01/2019 (shift-I)
- 21. The ratio of two number are 5: 9. If 6 is added in both numbers then their ratio become 2:3, The original number are.
  - (a) 25, 45
- (b) 10, 18



# **DISCOUNT** PYQ-solved questions

- 1. A shop offers 30% discount on MRP of a product. If the MRP of the product is ₹500, what is the selling price?
  - (a) ₹500
- (b) ₹250
- (c) ₹300
- (d) ₹350

RRB Group-D - 28/11/2018 (Shift-I)

- A shirt was marked at ₹1600. During a Diwali festival offer, 10% discount was allowed on it. What will be the selling price of the shirt?
  - (a) ₹1,400
- (b) ₹1,540
- (c) ₹1,440
- (d) ₹1,240
- RRB Group-D 23/09/2018 (Shift-I)
- Neha bought a book for ₹1300 at a
- 30% discount and sold it at a 30% profit. How much did he earn?
  - (a) ₹273
- (b) ₹390
- ₹780 (c)
- (d) ₹0

RRB Group-D - 26/09/2018 (Shift-III)

- The marked price of an article is ₹352 and its selling price is ₹326. What is the discount rate (up to one digit of decimal) given on the item?
  - (a) 8%
- (b) 7.8%
- (c) 7.4%
- (d) 8.3%

RRB Group-D - 26/10/2018 (Shift-III)

The current price of a computer is ₹32450, which is 12% less than its previous year price. What was the price of computer last year?

- (a) ₹37,424
- (b) ₹36,344
- ₹28,556
- (d) ₹36,875

RRB Group-D - 04/12/2018 (Shift-III)

6. If the market price is 30% more than its cost price and a 10% discount is offered on the market price, find the profit percentage.

- (a) 17%
- (b) 15%
- (c) 31/2%
- (d) 12%

RRB Group-D - 28/11/2018 (Shift-I)

- In a factory. the sales center decided not only to get rid of old stock but also to get variable costs in the process. In this case, he sold each set at a less price of ₹399. If the fixed cost is 24% of the total cost, then what was the less cost price of each set?
  - (a) ₹520
- (b) ₹540
- ₹525 (c)

(d) ₹550 RRB Group-D - 12/12/2018 (Shift-I)

- A person saved ₹5 by buying a dress in a sale. If he spends ₹45, how much percent will he save?
  - (a) 15%
- (b) 30%
- (c) 10%
- (d) 18%

RRB Group-D - 31/10/2018 (Shift-III)

A shop sells clothes at a 60% discount on weekends. Sunday, an additional discount of 10% is available on the discounted price. If you buy a shirt on Sunday

- for ₹36, how much more money you have to pay to buy the same shirt on Tuesday of the same month?
- (a) ₹57
- (b) ₹50
- (c) ₹68
- (d) ₹64

RRB Group-D - 05/10/2018 (Shift-III)

- 10. Find the selling price when the marked price is ₹160 and the discount is 12%?
  - (a) 140.80
- (b) 132.80
- 160.80 (c)
- (d) d100

RRB Group-D - 04/10/2018 (Shift-I)

- 11. A publisher, adding 30% of the production cost of the book, fixed the book's selling price at ₹260. Although, he gives a discount of 12% on the selling price for selling the book. What will be the profit percentage?
  - (a) 13.7
- (b) 12.87
- (c) 13.4
- (d) 14.4

RRB Group-D - 02/11/2018 (Shift-I)

- 12. Himanshi bought a T-shirt at a discount of 20% on its marked price. But sold it at marked price. What is the profit or loss percentage on the whole transsaction?
  - (a) 25% Profit
- (b) 25% Loss
- 15% Profit
- (d) 25% Loss
- RRB Group-D 19/09/2018 (Shift-I)

## **EXPLANATION**

(d), To Given: MRP = 500

Discount Rate = 30%.

**To Find:** (Selling price) with a 30% discount on an MRP.

#### According to question

 $SP = MRP - (Discount \% \times MRP)$ 

Now, SP = 
$$\stackrel{?}{=}$$
  $\left(500 - \left(\frac{30}{100} \times 500\right)\right)$ 

∴ So, the SP of the product with a 30% discount is ₹350.

(c), To Given: MP = ₹1600 **To Find:** The S.P. of the shirt. According to question

S.P. = M.P. - (Discount  $\% \times M.P.$ )

Now, S.P. = 
$$1600 - \left(\frac{10}{100} \times 1600\right)$$

So, the S.P. of the shirt with 10% discount is ₹1440.

(b), To Given: Neha bought a book for Rs 1300 at a 30% discount She sold at 30% profit

To Find: how much Neha earn? According to question Selling price

= Cost price 
$$\times \frac{(100 + \text{profit\%})}{100}$$

$$= 1300 \times \frac{(100 + 30)}{100}$$

$$= 1300 \times \frac{130}{100} = 1690$$

Neha's profit = 1690 - 1300 = ₹390 So, Neha earn ₹390, which is option (b).

## **PROFIT & LOSS** PYQ-SOLVED QUESTIONS CHAPTER

- 1. Kaveri bought a toy for ₹280 and sold it for ₹315. How much profit did she get?
  - (a) 17.5%
- (b) 12.5%
- 16% (c)
- (d) 15.25%
- RRB RPF SI 05/01/2019 (Shift-II)
- Geeta cakes prepares programs. She prepared a cake for birthday party and sold it for ₹700. The cost price for preparing the cake was ₹350. What is the profit % she gained?
  - (a) 200%
- (b) 50%
- (c) 100%
- (d) 150%
- RRB RPF Constable 17/01/2019 (Shift-I)
- By selling a pen for ₹144, Anurag losses  $\frac{1}{7}$  of the cost price. If the pen is sold for ₹189, then what will be the profit %?
  - (a) 11%
- (b) 12.5%
- (c) 11.5%
- (d) 14%
- RRB Group-D 17/09/2018 (Shift-I)
- The selling price of an item with 16.5% profit was ₹466. Had it been sold for ₹330, what would have been the percentage loss?
  - (a) 17.25
- (b) 17.75
- (c) 17
- (d) 17.5

RRB Group-D - 15/10/2018 (Shift-I)

- A carpenter suffers a loss of 10% on selling a footboard for ₹72. How much profit (%) or loss will be if he sels the footboard for ₹ 96?
  - (a) Profit, 10%
- (b) Profit, 20%
- Loss, 16% (c)
- (d) Loss, 25%
- RRB Group-D 04/10/2018 (Shift-II)
- Jack sells a garment for ₹1440 and earns 20% profit. What will be the cost price of the garment?
  - (a) ₹1152
- (b) ₹1240
- (c) ₹1200
- (d) ₹1180
- RRB RPF SI 10/01/2019 (Shift-II)
- A seller sells 12 chairs at a profit of 12% and 4 chairs at a loss of 3%. If his total profit is ₹1650, the cost price of each chair is:
  - (a) ₹1490
- (b) ₹1250
- (c) ₹1100
- (d) ₹1380

RRB RPF SI - 06/01/2019 (Shift-I)

- part of an item sold at a profit of 6% and the ramaining part was sold at a loss of 3%. If the total profit is ₹540, then what was the total cost of the item?
  - (a) ₹17,000
- (b) ₹18,000
- (c) ₹16,500
- (d) ₹18,500

RRB Group-D - 24/10/2018 (Shift-I)

- Sharad bought two bags for ₹900. He sold one of them at a profit of 25% and other at a loss of 25%. If the selling price both the bags are same, then the cost prices of both the bags are:
  - ₹437.5 and ₹462.5
  - (b) ₹330 and ₹570
  - ₹347.5 and ₹552.5 (c)
  - (d) ₹337.5 and ₹562.5

RRB Group-D - 30/10/2018 (Shift-III)

- 10. The difference between a loss of 13% and a profit of 15% was ₹63. The cost price of the item is:
  - (a) 225
- (b) 207
- (c)
- (d) 243
- RRB Group-D 26/11/2018 (Shift-III)
- 11. A mobile, when sold at a profit of 6% then earns ₹870 more than when it is sold at a loss of 6%. What is the cost pirce of the mobile phone?
  - (a) ₹6000
- (b) ₹7000
- (d) 7250
- (c) ₹6265
  - RRB Group-D 22/09/2018 (Shift-I)
- 12. If an item is sold at 13% loss and 14% profit, then the difference between both the prices is ₹162. What is the cost price of the item?
  - (a) ₹625
- (b) ₹620
- ₹600
- (d) ₹640
- RRB Group-D 03/12/2018 (Shift-II)
- 13. An item was sold at a loss of 12%. If it was sold for ₹49 more, then there would be a profit of 2%. The cost price of the item is ₹......

- (a) 325
- 300 (b)
- (c) 375
- (d) 350

RRB Group-D - 16/11/2018 (Shift-I)

- 14. Spoorti had sold a pair of shoes at a profit of 17% for ₹2,223. What was the cost price of the shoes?
  - ₹1,905
- (b) ₹1,870
- (c) ₹1,880
- (d) ₹1,900

RRB Group-D - 01/10/2018 (Shift-II)

- 15. A person buys two watches for ₹480. He sells one of them at 15% loss and the other at 19% profit. After that he comes to know, that he has sold both the watches at the same price. Find the cost price of both the watches.
  - (a) ₹ 280,200
- (b) ₹ 270,190
- (c) ₹ 285,200
- (d) ₹ 280,205
- RRB Group-D 18/09/2018 (Shift-III)
- 16. K buys a car for ₹4.50 lacs and spends₹1.25 lacs on its accessories. He sold the car at a loss of 20%. Find the selling price of the car.
  - (a) ₹4.00 lacs
- (b) ₹4.20 lacs
- ₹4.40 lacs
- (d) ₹4.60 lacs
- RRB RPF SI 11/01/2019 (Shift-III)
- 17. A seller gets 22% loss on selling a set of books for ₹1,755. What should be its selling price for getting 6% profit?
  - (a) ₹2,375
- (b) ₹2,385
- (c) ₹2,355
- (d) ₹2,365 RRB RPF Constable - 20/01/2019 (Shift-II)
- 18. On selling an old phone for ₹6360, Ranjita got 47% less thant the cost of buying it a few years ago. At what price should Ranjita sell it to get the profit of 13%?
  - (a) ₹13,560
- (b) ₹10,550
- (c) ₹11,550
- (d) ₹12,550
- RRB Group-D 05/10/2018 (Shift-I)
- 19. A person bought an item for ₹96 and sold it at a profit of 25%, then what was the selling price of the item?
  - ₹120 (a)
- (b) ₹125
- (c) ₹114
- (d) ₹115

RRB Group-D - 19/09/2018 (Shift-III)



# **PARTNERSHIP** PYQ-solved Questions

- 1. Mr. A starts a business with investment of ₹28,000. Mr. B Joins the business after 5 months. After two months that Mr. C also joins. If after 1 year the ratio of their profit is 4:2:3 then what was the amount investment by Mr. B and Mr. C?
  - (a) ₹24,000, ₹50,400
  - (b) ₹20,000, ₹30,000
  - (c) ₹12,000, ₹25,200
  - (d) ₹50,000, ₹20,000

RRB Group-D - 03/10/2018 (Shift-II)

- 2. 5 year ago a company had as loss of 60% of its capital investment. In the next year they recovered the amount loss in 2 phase. In phase I they recover ₹1,00,000 and in phase 2, they recover ₹80,000, what was their initial capital investment.
  - (a) ₹3,60,000
- (b) ₹3,00,000
- (c) ₹2,40,000
- (d) ₹1,60,000

RRB Group-D - 30/10/2018 (Shift-I)

- 3. X, Y and Z bought a field on an annual rent of ₹415. If X graze 25 cows in that field for 6 month. Y grazed 40 cows for 8 months and Z graze 30 cows for the whole year, then what is the share of the rent given by Y in the rent.
  - (a) ₹120
- (b) ₹154
- (c) ₹150
- (d) ₹160

RRB Group-D - 22/10/2018 (Shift-II)

- sports accessories shop organises a running event. With on entry fee of ₹200 to be registered on the sports. They were expecting 300 entries and on the event's day only 200 turned. up. How much less money did they receive in the entry compared with their initial expectation of 300 entries?
  - (a) ₹5,000
  - (b) ₹15,000

- (c) ₹12,000
- (d) ₹20,000

RRB Group-D - 20/09/2018 (Shift-II)

Raveena and Suniti have a total of ₹127. Suniti and Avinash have ₹153, while Avinash and Raveena have ₹160. How much money does Raveena have.

- (a) ₹93
- (b) ₹60
- (c) ₹67
- (d) ₹70

RRB Group-D - 29/10/2018 (Shift-III)

- X and Y started a business. X invested ₹8,000 and Y invested ₹10,000. After 6 months Z also ioined that business with an investment of ₹6,000. If there is a profit of ₹9,660 in 3 year. What is the share of Z.
  - (a) ₹1,500
  - (b) ₹2,100
  - (c) ₹1,900
  - (d) ₹1,200

RRB Group-D - 15/10/2018 (Shift-III)

- Tejal has a 40% stake and Ashank has a 60% stake in a partnership firm. On an average, if Tejal earns a profit of ₹10,00,000 annually how much profit will Ashank make.
  - (a) ₹24 Lakh
  - (b) ₹25 Lakh
  - (c) ₹30 Lakh
  - (d) ₹15 Lakh

RRB Group-D - 22/09/2018 (Shift-III)

- Purva invested ₹8,000 for 7 month in a business and Durba invested ₹7,000 for 8 months. The ratio of profit earned by them will be
  - (a) 64:49
  - (b) 8:7
  - (c) 1:1
  - (d) 7:8

RRB Group-D - 19/09/2018 (Shift-III)

9. A and B Start a business in partnership by investing ₹12,000

and ₹6,000 respectively. After 8 month C with a capital of ₹15,000 also joins that business. After 2 years how much C's share will be in the profit of ₹33,600.

- ₹15,000 (a)
- ₹12,000 (b)
- (c) ₹10,000
- (d) ₹22,000

RRB Group-D - 23/10/2018 (Shift-II)

- 10. A, B and C invested captital in the ratio of 2:3:5. The time periods of their investments being in the ratio 4:5:6. In what ratio would the profits be distributed?
  - (a) 08: 15: 20
  - (b) 05: 15: 30
  - (c) 08: 15: 30
  - (d) 07: 15: 30

RRB Group-D - 23/10/2018 (Shift-III)

- 11. Urmi and Lokesh started a partnerhip with an investment of ₹11,250 and ₹13,125. But due to financial crisis one of them had to withdraw his investment after 8 months of his investment. In what ratio should the profit of the first 12 months be divided into both?
  - (a) 7:9
- (b) 9:7
- (c) 7:6
- (d) 6:7

RRB Group-D - 02/11/2018 (Shift-II)

- 12. Tarun and Tapan started a partnership with investments of ₹13,000 and ₹19,500 respectively but due to some financial emergency Tapan had to with draw his investment after 8 months. In what ratio should the profit of the first 12 months be shared among them?
  - (a) 1:2
  - (b) 3:2
  - (c) 1:1
  - (d) 2:3

RRB Group-D - 28/09/2018 (Shift-I)



# **ALLIGATION** PYQ-SOLVED QUESTIONS

- 1.  $\frac{4}{5}$  of the mixture of milk and water was milk. If 5 litres of water is added to this mixture of 201, then the percentage of milk in the new mixture will be.
  - (a) 64
- (b) 75
- (c) 36
- (d) 44

RRB Group-D - 19/09/2018 (Shift-III)

- The ratio of honey and water in 2 containers are 4:3 and 6:7 respectively. How much of the mixture from the second container is to be taken and added with 3.5 litres of mixture from the first container to get the same ratio of honey and water in the new mixture.
  - (a) 6 l
- (b) 6.5 *l*
- (c) 7 l
- (d) 7.5 l

RRB Group-D - 30/10/2018 (Shift-III)

The initial ratio of sugar and flour in recipe was 17:28. With 27 kg of the recipe, Eliqabeth added more flour to make the sugar to flour ratio 2:5. How much flour did Elizabeth added later?

- (a) 8.5 kg
- (b) 8.7 kg
- 8.3 kg
- (d) 8.1 kg

RRB Group-D - 19/09/2018 (Shift-II)

- A bakery sells breads cakes, puffs and all grain biscuits every day, they use 9 kg of all purpose flour to make useful items. If 20 percent of all purposes of flour is used to make more cakes, so what is the actual quantity of all purpose flour used for making cakes?
  - (a) 1800
- (b) 2000
- 1500
- (d) 1000

RRB Group-D - 26/09/2018 (Shift-I)

- The ratio of milk and water in a mixture of 35 litres is 4:1. If we add 7 litres of water ot the mixture then how much will be the ratio of milk.
  - (a) 2:7
- (b) 2:1
- (c) 2:3
- (d) 1:3

RRB Group-D - 16/10/2018 (Shift-I)

Gold is 17 times as heavy as water and 9 times as heavy as copper.

- The ratio in which these two metals be mixed so that mixture is 12 times as heavy as water is.
- (a) 4:3
- (b) 7:1
- (c) 3:5
- (d) 3:2

RRB Group-D - 11/10/2018 (Shift-III)

- What is the quantity of copper in 1 kg of alloy if the alloy contains 32% copper, 40% zinc and the rest is nickel?
  - (a) 400 g
  - (b) 280 g
  - (c) 240 g
  - (d) 320 g

RRB Group-D - 18/09/2018 (Shift-II)

- If the price of 1.25 kg potato and 2.015 kg tomato is Rs. 35.26, what will be the average price of potato and tomato together (up to two whole digits of decimal.)
  - (a) Rs 12.32
  - (b) Rs. 14.04
  - (c) Rs. 10.80
  - (d) Rs. 11.95

RRB Group-D - 28/11/2018 (Shift-I)

### EXPLANATION

(a), To Given: The initial mixture = 20 0

To Find: The percentage of milk in the new mixture.

According to question

Quantity of milk in mixture =  $\frac{4}{5}$ 

$$\therefore \frac{4}{5} \times 20 = 16 \ \ell$$

The remaining portion of the initial mixture is water

$$= 20 - 16 = 4 \ell$$
. (water)

Now, adding 5 litre of water to the mixture, the volume become

$$= 20 + 5 = 25 \ell$$
.

We know, the amount of milk in the new mixture =  $16 \ell$ .

Now,

Percentage of milk

$$= \frac{16}{25} \times 100 = 64\%$$

- : The correct answer is (a).
- (b), To Find: Mixture of second container is to be taken to make the same ratio of honey and water in the new mixture.

#### According to question

Ratio of honey to water = 4:3

Total mixture in container 1 = 3.5litres

.. The amount of honey in container 1

$$=\frac{4}{7}\times 3.5 = 2.0$$
 litres.

Now,

Amount of water in container 1

$$=\frac{3}{7}\times 3.5 = 1.5$$
 litres.

Now, container 2:

Honey to water ratio = 6:7

Let x litres of the mixture from container 2 be added to 3.5 litres of container 1.

Now, the amount of honey from container 2 added =  $\left(\frac{6}{13} \times x\right)$  litres.

and amount of water from container 2

$$= \left(\frac{7}{13} \times x\right)$$
litres.

So, solving for x, we have :

$$2 + \left(\frac{6}{13}\right) \times x = 1.5 + \frac{7}{13} \times x$$

## **WORK AND TIME** CHAPTER **PYQ-SOLVED QUESTIONS**

- 1. Reeta and Meena together can complete a work in 10 days, while Reeta alone can complete the same work in 15 days. In how many days will Meena complete this work alone.
  - (a) 38 days
- (b) 32 days
- 28 days
- (d) 30 days

RRB Group-D - 30/10/2018 (Shift-II)

- Rohan and Rohit together can finish a work in 10 days while Rohan can do the same work in 15 days alone. In how many days will Rohit alone do the same work?
  - (a) 32 days
- (b) 30 days
- (c) 25 days
- (d) 35 days

RRB Group-D - 17/09/2018 (Shift-I)

- 3. P and Q together can finish a work in 6 days. Q alone can finish the same work in 10 days. In how many days can P alone do the same work?
  - (a) 15 days
- (b) 11 days
- 14 days (c)
- (d) 12 days

RRB Group-D - 23/09/2018 (Shift-I)

- As an airman, Lohit is twice as capable as Ayush and together they finish a work in 17 days. In how many days does Ayush alone finish the same work?
  - (a) 34 days
- (b) 51 days
- (c) 68 days
- (d) 40 days

RRB RPF SI - 13/01/2019 (Shift-II)

- 5. D can complete a work in 18 days and E can do the same work in half time of D. If they both work together, how long will they take to finish the work?
  - (a) 5
- (b) 4
- (c) 7
- (d) 6

RRB RPF Constable - 22/01/2019 (Shift-II)

Arjun alone can do a work in 12 days and Bheem alone can do the same work in 15 days with the help of Chetan, they together complete that work in 5 days. How many days will Chetan alone take to do that work?

- (a) 20 days
- (b) 24 days
- 15 days
- (d) 16 days

RRB Group-D - 28/11/2018 (Shift-I)

- A and B can complete a work in 50 days, B and C can complete it in 37.5 days while C and A together can complete the same work in 30 days. In how many days can each of A, B and C individually complete the same work?
  - 50, 150 and 75
  - 40, 60 and 120
  - 60, 120 and 40
  - (d) 75, 150 and 50

RRB Group-D - 28/11/2018 (Shift-II)

- A and B together can complete a work in 10 days. B and C together in 12 days and C and A together in 15 days. How much time will take A to complete this work alone?
  - (a) 34 days
- (b) 24 days
- 20 days
  - (d) 30 days RRB RPF Constable - 18/01/2019 (Shift-I)
- A, B and C can complete a work in 81 days. A and B together can complete the same work in 97.2 days. B and C together can complete the same work in 162 days. In how many days can B complete that work alone?
  - (a) 243
- (b) 234
- (c) 261
- (d) 225 RRB Group-D - 27/11/2018 (Shift-I)
- 10. A and B can do a work in 40 days, B and C can do the same work in 56 days, while C and A together can do the same work in 70 days. How many days will C take to
  - (a) 210
  - complete the work alone? (b) 175
  - (c) 245
- (d) 280

RRB Group-D - 05/12/2018 (Shift-I)

11. A can do a work in 6 days. B takes 8 days to complete the work. C takes the same time complete the work as the time taken by A and B working together. If B and C work togehter how much time to take them to complete the work?

RRB Group-D - 01/10/2018 (Shift-II)

- 12. A, B and C can complete a work in 81 days. A and B together can complete the same work in 97.2 days. B and C together can complete the same work in 162 days. In how many days can B complete the work alone?
  - (a) 225
- (b) 234
- (c) 243
- (d) 261

RRB RPF SI - 10/01/2019 (Shift-III)

- 13. Ashok and Kiran complete a work in 10 hours Kiran and Rohan complete the same work in 15 hours, while Ashok and Rohan complete it in 12 hours. How many hours will it take for Kiran to do this work alone?
  - 26 hours
- (b) 15 hours
- 24 hours
  - (d) 30 hours

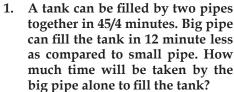
RRB Group-D - 15/11/2018 (Shift-II)

- 14. A, B and C together can complete a work in 10 days. A alone can complete the work in 20 days and B alone can complete the work in 30 days. How many days will C take to complete that work alone?
  - 30 days
- (b) 20 days
- 10 days
  - (d) 60 days RRB Group-D - 25/10/2018 (Shift-II)
- 15. A and B can complete a work in 28 days. B and C can complete the same work in 35 days. While C and A can complete the same work in 42 days. How many days will C take to complete this work alone?
  - (a) 125
- (b) 120
- (c) 124
- (d) 122

RRB Group-D - 12/10/2018 (Shift-I)

16. A, B and C together can complete a work in 45 days. If only A and B worked, then they take 54 days to complete the work and if only B and C worked, they take 90 days

## PIPE AND CISTERNS CHAPTER PYQ-solved questions



- (a) 30 minute
- (b) 12 minute
- (c) 18 minute (d) 24 minute RRB RPF SI - 05/01/2019 (Shift-II)
- Two pipes A and B can fill a tank in 45 hrs and 36 hrs respectively. If both the pipes are opened together, then how long will it take to fill the tank?
  - (a) 10 Hours
- (b) 20 Hours
- (c) 2 Hours
- (d) 5 Hours
- RRB RPF Constable 25/01/2019 (Shift-III)
- If two flood gates A and B work together then the reservoir will be filled in 6 hours gate A fills the reservoir 5 hour faster than gate B. The fast flood gate A will fill the reservoir in how many hours?
  - (a) 5 Hours
- (b) 10 Hours
- (c) 7 Hours
- (d) 13 Hours
- RRB Group-D 03/10/2018 (Shift-I)
- Pipe A can fill an empty pool in 14 hours. Together with pipe B it can fill the empty pool in 12 hours. So pipe B can fill the empty pool in hours?
  - (a) 84
- (b) 75
- (c) 78
- (d) 77
- RRB Group-D 23/09/2018 (Shift-I)
- A pipe can fill a tank in 12 hrs and the second pipe can fill it in 15 hrs. If both the pipes are opened at the same time, then how much time will it take to fill half of the
  - (a)  $4\frac{2}{3}$  Hours (b)  $3\frac{1}{3}$  Hours
  - (c)  $6\frac{2}{3}$  Hours (d)  $2\frac{1}{3}$  Hours

RRB Group-D - 15/10/2018 (Shift-I)

Pipe J and K can. fill a tank in 15 and 20 minutes respectively. If both the pipes are opened together then, what time will be taken to fill the tank?

- (a)  $17\frac{1}{2}$  minute
- (b)  $11\frac{3}{5}$  minute
- (c)  $15\frac{2}{3}$  minute
- (d)  $8\frac{4}{7}$  minute

RRB Group-D - 11/10/2018 (Shift-I)

- Pipe A and B can fill an empty tank in 10 and 15 hrs respectively. Both can fill the tank in \_\_\_\_ hrs.
  - (a) 6:10
- (b) 6
- (c) 4
- (d) 6:15

RRB Group-D - 16/10/2018 (Shift-II)

- Pipe A and pipe B can fill a tank in 4 and 16 hours respectively. Both can fill the tank in how many hours?

  - (a)  $\frac{4}{15}$  Hours (b)  $\frac{17}{3}$  Hours

  - (c)  $\frac{16}{5}$  Hours (d)  $\frac{16}{7}$  Hours
- Two pipes A and B can fill a tank in X minute and 6 minute respectively. If both the pipes are working together, then they fill the tank in 1.5 minute. Find the value of X?
  - (a) 1 minute
- (b) 2 minute
- (c) 4 minute
- (d) 5 minute
- RRB Group-D 11/10/2018 (Shift-I)
- 10. Pipe A can fill an empty tank in 14 hours. A and B can fill the same tank in 10 hours. Pipe B alone can fill this empty tank in how many hours?
  - (a) 35
- (b) 20
- (c) 30
- (d) 25 RRB Group-D - 12/11/2018 (Shift-II)
- 11. 2/5th part of tank A is filled with water. Pipe P can fill it in 10 minutes, while pipe Q can empty it in 6 minutes. If P and Q are opened together, then in how much time tank will be emptied?

- (a) 6 minute
- (b) 6.5 minute
- (d) 7 minute (c) 5.5 minute RRB RPF Constable - 17/01/2019 (Shift-I)
- 12. 2/5 part of a water tank is filled. Pipe A can fill the tank in 12 minutes and pipe B can empty the same tank in 6 minute. If both pipes are opened together, then to fill the empty tank or to empty the full tank, what time will be taken?
  - (a) It will fill in 4.8 minutes
  - (b) It will empty in 5.6 minutes
  - (c) It will empty in 4.8 minutes
  - (d) It will fill in 5.6 minutes
  - RRB RPF SI 11/01/2019 (Shift-II)
- 13. A pipe can fill an empty cistern in 7.8 hours while another can empty the cistern when full in 19.5 hours. Both the pipes were turned on when the cistern was half-empty. How long will it take to the cistern to be full?
  - (a) 5.2 hour
- (b) 3.9 hour
- (c) 7.8 hour
- (d) 6.5 hour
- RRB Group-D 19/09/2018 (Shift-II)
- 14. A pipe can fill a tank in 7/4 hours while the other pipe can empty the full tank in 21/8 hours. Both pipes were opened at that time when the tank was 2/3 empty. How much time will be taken to fill the tank?
  - (a) 3 hours 20 minute
  - (b) 3 hours 30 minute
  - (c) 3 hours 45 minute
  - (d) 3 hours 15 minute
    - RRB Group-D 26/09/2018 (Shift-I)
- 15. A tap can fill the tank in 25 minutes and the other can empty the tank in 50 minutes. If both the taps are opened simultaneously, then what time will the tank be filled in time?
  - (a) 1 hour, 5 minutes
  - (b) 50 minutes
  - (c) 55 minutes
  - (d) 1 hour, 5 minutes

RRB Group-D - 18/09/2018 (Shift-II)

## **SPEED, TIME & DISTANCE PYQ-**solved questions

- 1. Two buses start from a house run at a speed of 25 km/h at an interval of 15 minute. How much more speed (km/h) does a woman coming from the opposite side of the house have to walk so that the buses meet at an interval of 10 minutes.
  - (a) 12
- (b) 12.25
- (c) 12.5
- (d) 12.75

RRB RPF SI - 11/01/2019 (Shift-II)

- Prithi is going to Delhi from Rajdhani Express which is running 6 minutes late. Driver increases, its speed by 4 km/hr. By doing this the train arrives on time at the next station which is at the distance of 36 km. Find the actual speed of the train.
  - (a) 20 km./hr.
- (b) 26 km./hr.
- (c) 36 km./hr. (d) 30 km./hr.

RRB RPF Constable - 17/01/2019 (Shift-I)

- 3. Kishan cycled 96 km at a certain speed. If he cycled 4 km/h slower, then he would have taken an additional time of two hours to reach the destination. What is the speed, at which kishan actually cycled in km/h?
  - (a) 12
- (b) 18
- (c) 16
- (d) 15 RRB Group-D - 11/10/2018 (Shift-II)
- A person has to cover a distance of 40 km. He covers a distance of 16 km and the remaining distance is covered by a tanga. If he covers a distance of 16 km from a tanga and the remaining distance at a speed of 4 km/hr. So he takes more than 1 hour. Find the speed of the tanga.
  - (a) 12 km./hr.
- (b) 8 km./hr.
- 16 km./hr. (d) 10 km./hr. RRB Group-D - 20/09/2018 (Shift-III)
- In a 200 meters long race the runner A beats runner B by 3 seconds. If the speed difference between A and B is 1.5 m/s. So find the speed of A in meter per second.

- (a) 10.78
- (b) 10.5
- (c) 8.728
- (d) 9.728

RRB Group-D - 15/11/2018 (Shift-III)

- A train is running in a fog crosses a person who was walking in the same direction at a speed of 3 km/h. That person could the car up to distance of 100 m for 4 minutes. What was the speed of the car?
  - (a) 9/2 km./hr.
  - (b) 7/2 km./hr.
  - (c) 5 km./hr.
  - (d) 5/2 km./hr.

RRB Group-D - 12/11/2018 (Shift-I)

- Two cars A and B starting at the same time meet each other in opposite direction after t hours and after arriving they reach their destination after 5 hours and 6 hours. If the speed of car A is 55 km/hr, what will be the speed of the car B?
  - $66\sqrt{12} \,\mathrm{km/hr}$
  - $110\sqrt{3}\,\mathrm{km/hr}$
  - $\frac{110}{\sqrt{6}}$ km/hr
  - (d)  $\frac{55}{6}\sqrt{30}$  km/hr

RRB Group-D - 12/11/2018 (Shift-I)

- Parvej belongs to Town A and Gautan belongs to Town B. They start their Journey to each other cities by the same route at the same time. They meet where some along the way and continue their journey. Parvej takes 12 hours to reach the destination after meeting Gautam, while Gautam takes another 3 hours to reach the city of parvej. If parvej travels at a speed of 60 km/hr, then find the speed of Gautam in km/hr.
  - (a) 120
- (b) 105
- (c) 90
- (d) 125

RRB Group-D - 11/12/2018 (Shift-I)

If Vinay would have run at a high speed of 2 km/h he would have

- taken 10 minutes less to cover 4 km, then find the speed of Vinay.
- (a) 7 km./hr.
  - (b) 5 km./hr.
- (d) 6 km./hr. (c) 4 km./hr. RRB Constable - 20/07/2018 (Shift-III)
- 10. Geeta travels 120 km by steamer, 450 km by train and 60 km by scooter from Hyderabad to IIT Roorkee. The total journey takes 13 hours 30 minutes and the speed of the train is 3 times the transit of the scooter and  $1\frac{1}{2}$  times that of the same steamer. What is the speed of the train?
  - (a) 60 km./hr.
- (b) 70 km./hr.
- (c) 65 km./hr.
  - (d) 54 km./hr. RRB Group-D - 04/12/2018 (Shift-III)
- 11. Raima covered some distance with a speed of 7 km/h on foot and some distance at a speed of 12 km/h on a bicycle. He had convered a distance of 64 km in 7 hours. How many hours did he travel on a bicycle?
  - (a) 2
- (b) 3
- (c)
- (d) 4

RRB RPF SI - 11/01/2019 (Shift-I)

- 12. Nidhi takes 3 hours 45 minutes to walk from one place and return to the same place by bicycle, it takes 4 hours 20 minutes to walk. So how long will it take to get on the
  - 3 hours 10 minutes (a)
  - 3 hours 35 minutes (b)
  - 3 hours 45 minutes (c)
  - (d) 3 hours 15 minutes

RRB RPF SI - 12/01/2019 (Shift-III)

- 13. Hema takes 9 hours 55 minutes to walk a certain distance and return by bicycle. She takes 12 hours and 30 minutes to walk and walk on the same distance, how long does it take to go from both sides by bicycle and return form bicycle.
  - (a) 7 hour 20 min
  - (b) 7 hour 15 min
  - 7 hour 35 min (c)
  - (d) 7 hour 45 min

RRB RPF Constable - 24/01/2019 (Shift-III)



# **PROBABILITY** PYQ-SOLVED QUESTIONS

- 1. Satish puts 5 yellows and 3 blue balls in a closed box. His brother Manish picks two balls at random. Calculate the probability that balls picked are of the same colour.
  - 15 (a) 28
- 23
- 13 (c) 28

RRB RPF Constable - 17/01/2019 (Shift-III)

- Find the probability that if a dice is thrown twice, the sum of the digits is 10.
  - (a) 3
- (b) 1/36
- (c) 1/12
- (d) 5/36

RRB RPF SI - 05/01/2019 (Shift-II)

- What will be the probability to remove face card from card deck?
- 12 13

RRB Group-D - 12/10/2018 (Shift-I)

- To ace out deck of cards probability can be
  - 12 <u>13</u>
- 26
- (c)
- 1

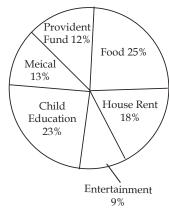
RRB Group-D - 16/10/2018 (Shift-I)

- A box contains 100 pens, out of which eight are defective. One pen is out from the box. Find the probability that the pen is not fail.
  - (a) 23/25
- (b) 8/100
- (c) 100/8
- (d) 25/23

RRB Group-D - 29/10/2018 (Shift-III)

### Data Interpretation

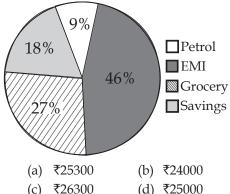
This chart represent the household lost per month of a family if the family's income is ₹33,650 then the total expenditure incurred by the family on entertainment and food in a month.



- (a) ₹11, 144
- (b) ₹11, 441
- (c) ₹11,442
- (d) ₹11,414

RRB RPF SI - 11/01/2019 (Shift-III)

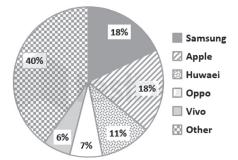
The percentage details of Ramu's monthly household expenses are as follows in four sections. If he earns ₹55000/month So, how much is the EMI he pays each month.



- (d) ₹25000

RRB RPF SI - 11/01/2019 (Shift-III)

- The given pie graph shows the total sales of various mobile companies for the year 2017?



- If the total sales in the year 2017 was 5000 crores then the sales in crore made by Vivo company was.
- (a) 300
- (b) 250
- (c) 350
- (d) 2000

RRB RPF Constable - 17/01/2019 (Shift-I)

- 9. The angle of sector corresponding to violin is .....
  - (a) 16.8
- (b) 16°
- (c) 57.6°
- (d) 48°

RRB RPF Constable - 22/01/2019 (Shift-I)

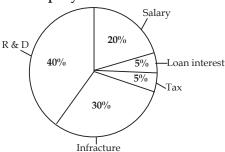
- 10. If there are 300 students in total, then what is the difference between tabla player and veena players.
  - (a) 30
- (b) 90
- (c) 3
- (d) 9

RRB RPF Constable - 22/01/2019 (Shift-I)

- 11. What is the ratio of student who play guitar to violinists?
  - (a) 5:4
- (b) 5:6
- (c) 25:16
- (d) 8:15

RRB RPF Constable - 22/01/2019 (Shift-I)

12. The following pie chart Q3 2015 shows different expenditure of company XYZ.



If company XYZ has spend ₹100 lakh crore on various department then how much will it cost in R&D (lakh crore)

- (a) 30
- (b) 20
- (c) 10
- (d) 40

RRB Group-D - 04/11/2018 (Shift-I)

13. Following chart gives information about mobile manufacturer companies in India.