

RRB CLERK MAINS MEMORY BASED (QUANTITATIVE APTITUDE)

Q1. Q A container contains mixture of milk and water in which milk is 80%. 75% of mixture is taken out and 10 water is added, now the concentration of milk in the mixture is 60%. Find the quantity of milk initially.

- (a) 90 ltr.
- (b) 96 ltr.
- (c) 72 ltr.
- (d) 64 ltr.
- (e) None of these

Q2. Q The ratio of investment of A, B, C and D in a business is 2 : 3 : 5 : 7. A and B started the business initially, while C and D joined the business after 4 months. After 1 year the profit of C is equal to the average of the profit of A and D. i.e. 12000 Rs. Then find the Share of B.

- (a) 10000 Rs
- (b) 10800 Rs
- (c) 12000 Rs
- (d) 11000 Rs
- (e) None of these

Q3. Q The length of a rectangle is increased by 49.99%. While its breadth is decreased by 10.01%. Then find the percentage change in area.

- (a) 35% increase
- (b) 45% increase
- (c) 25% increase
- (d) 30% increase
- (e) None of these

Q4. Q When Rs 6000 invested in a scheme for 6 years at $x\%$ simple interest per annum gives Rs 720 more interest as compared to the interest earned when the same principal is invested in another scheme for 4 years at $(x + 2)\%$ simple interest per annum. Find x

- (a) 8%
- (b) 10%
- (c) 14%
- (d) 12%
- (e) None of these

Q5. Q A shopkeeper bought 150 calculators at the rate of Rs. 250 per calculator. He spent Rs. 2500 on transportation and packing. If the marked price of

calculator is Rs. 320 per calculator and the shopkeeper gives a discount of 5% on the marked price then what will be the percentage profit gained by the shopkeeper?

- (a) 20%
- (b) 14%
- (c) 15%
- (d) 16%
- (e) None of these

Q6. Q The average weight of 3 men A, B and C is 84 kg. Another man D joins the group and the average now becomes 80 kg. If another man E, whose weight is 3 kg more than that of D, replaces A, then average weight of B, C, D and E becomes 79 kg. the weight of A is:

- (a) 70 kg
- (b) 72 kg
- (c) 74 kg
- (d) 80 kg
- (e) None of these

Q7. Q A retailer purchases a sewing machine at a discount of 15% and sells it for Rs. 1955. In the bargain he makes a profit of 15%. How much is the discount which he got from the whole sale?

- (a) Rs. 270
- (b) Rs. 290
- (c) Rs. 300
- (d) 310
- (e) None of these

Q8. Q The wheat sold by a shopkeeper contained 10% low quality wheat. What quantity of good quality wheat should be added to 150 kg of wheat so that percentage of low quality wheat becomes 5%?

- (a) 50kg
- (b) 150 kg
- (c) 135 kg
- (d) 75kg
- (e) None of these

Q9. Q An urn contains 6 red, 4 blue and 2 green balls. 3 balls are picked at random, find the probability that all the 3 balls are of same colour.

- (a) $\frac{8}{55}$
- (b) $\frac{9}{55}$
- (c) $\frac{1}{11}$
- (d) $\frac{7}{55}$
- (e) None of these

Q10. Q 2 candles of the same height are lighted at the same time. The first is to be consumed in 5 hours and seconds in 4 hours. Assuming that they burn at constant

rates, in how many hours their height will be in ratio 3 : 2 ?

- (a) 20/7
- (b) 10/3
- (c) 4
- (d) 11/3
- (e) None of these

Directions (Q. 11–15): The following table provides information regarding employees of company X and Company Y in 4 different cities. Study it carefully and answer the following questions.

City	Company X		Company Y	
	Total employees	Male: Female	Total Employees	Male: Female
Delhi	760	11:8	810	4:5
Chennai	450	2:3	680	8:9
Chandigarh	560	5:3	620	17:14
Kolkata	640	9:7	720	11:7

Q11. Q What is the ratio the no. of females in Delhi in company X to the no. of females in Kolkata in the same Company ?

- (a) 8 : 5
- (b) 5 : 8
- (c) 8 : 7
- (d) 7 : 8
- (e) None of these

Q12. Q What is the total no. of females in company Y in all 4 cities together?

- (a) 1370
- (b) 1350
- (c) 1310
- (d) 1300
- (e) None of these

Q13. Q The no. of males in Company Y in Delhi and Chennai Together is approximately what percent of the no. of females in Company X in Chandigarh and Kolkata?

- (a) 135%

- (b) 145%
- (c) 139%
- (d) 149%
- (e) 152%

Q14. Q Total males in company Y is approximately what percent of total employees in company Y?

- (a) 50%
- (b) 52%
- (c) 54%
- (d) 56%
- (e) 58%

Q15. Q In how many cities the no. of females in company Y are more than no. of females in company X?

- (a) 0
- (b) 1
- (c) 2
- (d) 3
- (e) 4

Direction : Due to demonetization of 500 Rs. and 1000 Rs. note, following rules are applicable to the people in the country —

	Max Credit Limit per day in a Bank	Max Withdrawal limit per day from Bank	% Penalty on Tax collected by govt.
Senior Citizen	2,50,000 Rs.	40,000 Rs.	30%
Male	5,00,000 Rs.	65,000 Rs.	55%
Female	5,00,000 Rs.	50,000 Rs.	45%
Children	10,00,00 Rs.	10,000 Rs.	20%

Note- 1.

Following age group will be applicable-
 1. 0 – 8 years old → children

2. 9 – 45 Male / Female

3. < 45 senior citizen

Note-2.

Following tax slabs will be applicable-

1. No tax → 0 - 250000 Rs.
2. 10% → 250000 - 500000 Rs.
3. 20% → 500000 - 1000000 Rs.
4. 30% → <1000000 Rs.

Q16. Q Babu, 56 years old has 5 crore black money. How much money (in crores) will he get after giving tax to the govt. and penalty on it?

- (a) 2.95
- (b) 3.05
- (c) 3.95
- (d) 4.05
- (e) 0.95

Q17. Q Ram, 35 years old has black money amounts to 3,25,000Rs. On which day he will get all of his money after giving tax and penalty if he visits bank on daily basis and withdraw maximum amount.

- (a) 4th
- (b) 5th
- (c) 3rd
- (d) 6th
- (e) 7th

Q18. Q If the credit limit per day in Bank for senior citizen is increased by 20% and the withdrawal limit per day from bank for senior citizen is increased by 50% then find the ratio of credit limit per day to the withdrawal limit per day after increment for senior citizen?

- (a) 2 : 1
- (b) 3 : 1
- (c) 4 : 1
- (d) 7 : 1
- (e) 5 : 1

Q19. Q Govt. said that there will be investment of 25% out of the total amount recovered as tax and penalty on tax in GaribKalyanYojana scheme. If Gopal, 26 year old has 20 crore black money then find how much money will be invested in GaribKalyanYojana scheme?

- (a) 2,32,50,000
- (b) 34,32,50,000
- (c) 1,19,40,000
- (d) 4,05,10,000
- (e) None of these

Q20. Q Find the difference between the days required to withdraw 52,00,000Rs. money under a male bank account to the days required to withdraw 5,00,000Rs. money under a children Bank account ?

- (a) 25 days
- (b) 20 days
- (c) 40 days
- (d) 30 days
- (e) None of these

Q21. Q P and Q entered into partnership investing Rs 12000 and Rs 16000 respectively. After 8 months, R also joins the business with a capital of Rs 15000. The share of R in a profit of Rs 45600 after 2 years will be :

- (a) 24000
- (b) 16000
- (c) 12000
- (d) 11400
- (e) None of these

Q22. Q When the price of sugar was increased by 20%, a family reduced its consumption in such a way that the expenditure on sugar is only increased by 15%. If 24 kg were consumed per month before the increase in price, find the new monthly consumption.

- (a) 22 kg
- (b) 23 kg
- (c) 23.5 kg
- (d) 22.5 kg
- (e) None of these

Q23. Q A person covered 9 km at 3 km/h, 25 km at 5 km/h and 30 km at 10 km/h. Then find the average speed in covering the whole distance.

- (a) 57/11 km/h
- (b) 60/11 km/h
- (c) 62/11 km/h
- (d) 6 km/h
- (e) None of these

Q24. Q A dishonest dealer sells the goods at 10% loss on cost price but uses 20% less weight. What is his percentage profit a loss?

- (a) 12.5% gain
- (b) 12.5% loss
- (c) 50/3% loss
- (d) 5/3% gain
- (e) None of these

Q25. Q Two pipes A and B can fill a tank in 30 minutes and 45 minutes respectively. Both pipes are opened. The tank will be filled in just 20 minutes, if the pipe B is turned off after :

- (a) 10 minutes
- (b) 18 minutes
- (c) 8 minutes

- (d) 15 minutes
 (e) None of these

Q26. Q In a voyage of 600 km, a ship was slowed down due to bad weather and storm in Ocean. Its average speed for the trip was reduced by 200 km/hr, and the time of trip increased by 30 minutes. The duration of the voyage is:

- (a) 1 hour
 (b) 2 hour
 (c) 4/3 hour
 (d) 3/2 hour
 (e) 5/3 hour

Q27. Q After replacing an old member by a new member, it was found that the average age of four members of a family is the same as it was 3 year ago. What is the difference between the ages of the replaced and the new member ?

- (a) 10 years
 (b) 11 years
 (c) 12 years
 (d) 8 years
 (e) None of these

Q28. Q Ramesh borrowed 830 Rs. from Sanjeev at 12% p.a. S.I. for 3 years. He then added some more money to the borrowed sum and lent it to Rajesh for the same period of time at 14% p.a. S.I. If Ramesh gains Rs. 93.90 in the whole transaction, how much money did he add from his side ?

- (a) Rs. 35
 (b) Rs. 55
 (c) Rs.80
 (d) Rs. 105
 (e) None of these

Q29. Q In what time will be Rs. 390625 amount to Rs. 456976 at 4% compound interest ?

- (a) 2 years
 (b) 3 years
 (c) 4 years
 (d) 5 years
 (e) None of these

Q30. Q The length of rectangular floor is twice its breadth. If Rs 256 is required to paint the floor at the rate Rs 2 per sq m, then what would be the length of floor?

- (a) 16 m
 (b) 8 m
 (c) 12 m

- (d) 32 m
 (e) 20 m

Q31. Q What is the area of the rectangle?

Statement I → Length of the rectangle is equal to the radius of a circle whose circumference is 132 cm.
 Statement II → breadth of the rectangle is of the perimeter of the rectangle.

- (a) If statement I alone is sufficient but statement II alone is not sufficient
 (b) If statement II alone is sufficient but statement I alone is not sufficient
 (c) Either statement I or statement II alone is sufficient
 (d) Statement I and statement II even together are not sufficient
 (e) Statement I and statement II together are sufficient

Q32. Q

$$x^2 + y^2 = ?$$

$$\text{Statement I} \rightarrow \frac{x^2}{7} - x + \frac{12}{7} = 0$$

$$\text{Statement II} \rightarrow x + y = 9, \frac{1}{x} + \frac{1}{y} = \frac{1}{2}$$

- (a) If statement I alone is sufficient but statement II alone is not sufficient
 (b) If statement II alone is sufficient but statement I alone is not sufficient
 (c) Either statement I or statement II alone is sufficient
 (d) Statement I and statement II even together are not sufficient
 (e) Statement I and statement II together are sufficient

Q33. Q In what time the 2 trains cross each other while running in the same direction?

Statement I : The first train crosses a pole in 9 seconds
 Statement II: The 1st train crosses the second running in opposite direction in 45 seconds, Ratio of speed of 1st train to 2nd train is 2 : 3

- (a) If statement I alone is sufficient but statement II alone is not sufficient
 (b) If statement II alone is sufficient but statement I alone is not sufficient
 (c) Either statement I or statement II alone is sufficient
 (d) Statement I and statement II even together are not sufficient
 (e) Statement I and statement II together are sufficient

Q34. Q What is the marked price of the article?

Statement I → The article is sold at 15% discount on market price still making a gain of 16 Rs
 Statement II → The difference between the marked price and selling

price is 50% more than the difference between Selling price and cost price.

- (a) If statement I alone is sufficient but statement II alone is not sufficient
 (b) If statement II alone is sufficient but statement I alone is not sufficient
 (c) Either statement I or statement II alone is sufficient
 (d) Statement I and statement II even together are not sufficient
 (e) Statement I and statement II together are sufficient

Q35. Q 40 students sit in rows and columns. How many students are seated in each column? Statement I - The number of rows is 62.50% of the number of columns. Statement II - The number of rows is $\frac{5}{8}$ of the number of columns.

- (a) If statement I alone is sufficient but statement II alone is not sufficient
 (b) If statement II alone is sufficient but statement I alone is not sufficient
 (c) Either statement I or statement II alone is sufficient
 (d) Statement I and statement II even together are not sufficient
 (e) Statement I and statement II together are sufficient

Q36. Q

Directions: In each of these questions, **two equations (I) and (II)** are given. You have to solve both the equations and give answer

I. $2x^2 - 21x + 54 = 0$

II. $y^2 - 14y + 49 = 0$

- (a) if $x > y$
 (b) if $x \geq y$
 (c) if $x < y$
 (d) if $x \leq y$
 (e) if $x = y$ or If there is no relation between 'x' and 'y'.

Q37. QDirections: In each of these questions, **two equations (I) and (II)** are given. You have to solve both the equations and give answer

Q1

(a); $(+1)^3, (+2)^3, (+3)^3, (+4)^3, (+5)^3$

Q1. a $\therefore 68 + 1^3 = 68 + 1 = 69$

(c); $(+1.7), (-3.4), (+6.8), (-13.6)$

$\therefore 9.5 + 13.6 \times 2$

Q2. c $9.5 + 27.2 = 36.7$

(b); $(\times 2 + 1), (\times 2 + 2), (\times 2 + 3), (\times 2 + 4)$

Q3. b $58 \times 2 + 5 = 121$

I. $x^2 - 19x + 70 = 0$

II. $2y^2 - 17y + 35 = 0$

- (a) if $x > y$
 (b) if $x \geq y$
 (c) if $x < y$
 (d) if $x \leq y$
 (e) if $x = y$ or If there is no relation between 'x' and 'y'.

Q38. QDirections: In each of these questions, **two equations (I) and (II)** are given. You have to solve both the equations and give answer

I. $3x^2 + 5x - 8 = 0$

II. $y^2 - 4y + 3 = 0$

- (a) if $x > y$
 (b) if $x \geq y$
 (c) if $x < y$
 (d) if $x \leq y$
 (e) if $x = y$ or If there is no relation between 'x' and 'y'.

Q39. QDirections: In each of these questions, **two equations (I) and (II)** are given. You have to solve both the equations and give answer

I. $12x^2 - 16x + 5 = 0$

II. $18y^2 - 45y + 25 = 0$

- (a) if $x > y$
 (b) if $x \geq y$
 (c) if $x < y$
 (d) if $x \leq y$
 (e) if $x = y$ or If there is no relation between 'x' and 'y'.

Q40. Q Directions: In each of these questions, **two equations (I) and (II)** are given. You have to solve both the equations and give answer

I. $3x^2 - 11x + 8 = 0$

II. $3y^2 + 20y + 32 = 0$

- (a) if $x > y$
 (b) if $x \geq y$
 (c) if $x < y$
 (d) if $x \leq y$
 (e) if $x = y$ or If there is no relation between 'x' and 'y'.

- (d); ($\times 0.5$), ($\times 1.5$), ($\times 2.5$), ($\times 3.5$), ($\times 4.5$)
- Q4. d $30 \times 3.5 = 105$
- (a); (-81) , (-27) , (-9) , (-3) , (-1)
- Q5. a $\therefore 334 - 81 = 253$
- (c); $\frac{11}{15} \times \frac{15}{100} \times x = 1650$
- Q6. c $x = 15000$ Rs.
- Q7. d
- Q8. d
- Q9. b
- (b); $CP = \frac{100}{92} \times 1380$
- Required price = $\frac{108}{100} \times \frac{100}{92} \times 1380 = 1620$
- Q10. b
- Q11. c (c); $288 + 288 = 576$
- Q12. d (d); $? = 4824 - 4704 = 120$
- Q13. c (c); $63 + 89 = 152$
- (b); $\sqrt{?} + 416 = 442$
- $\sqrt{?} = 26$
- Q14. b $? = 676$
- (b); $45 + 362 + ? = 440$
- Q15. b $? = 33$
- Q16. c
- (a) Let Principal = P
- Compound interest at 20% per annum for 2 years
- $= (20 + 20 + 4)\%$
- of P
- $= 44\%$ of P
- 44% of P = 880
- P = 2000
- Simple Interest for 4 years at 10% per annum
- $= 40\%$ of 2000 = 800
- Q17. a

(a); Required time = $\frac{1}{\frac{1}{60} + \frac{1}{30}}$

Q18. a $= \frac{60}{3} = 20 \text{ min.}$

(b); Decreased price = $\frac{10}{100} \times 270 = 27$

\therefore Reduced price of Sugar = 27 Rs./ kg.

Q19. b \therefore Original price of Sugar = $27 \times \frac{100}{90} = 30 \text{ Rs.}$

Q20. e

Q21. b (b); $2.6 \times 15 = 39$

Q22. c (c); $\frac{4}{10} \times \frac{6}{10} \times \frac{3}{5} \times 2750 = 396$

Q23. b (b); 425.99

Q24. d (d); 128

Q25. d (d); $1313 + 2121 - 1616 = 1818$

Q26. d (d); Required average = $\frac{183.3}{5} = 36.66 \text{ lakh}$

Q27. b

Q28. c (c); Required % = $\frac{495.4}{713.36} \times 100 = 69.44 \approx 69\%$

Q29. a (a); Required expenditure = 544.44 lakh

Q30. e (e); Ratio = $\frac{451}{485} = 0.93$

Q31. b

Q32. d

(e); sum of A, B and C = $600 \times 3 = 1800$

A = 300, B = 600, C = 900

Now A = 330, B = 480, Average = 630

$\therefore 630 \times 3 = 330 + 480 + C$

C = 1080

C will be increased by 180

Q33. e

$$\begin{array}{ccc}
 (b); \frac{4}{7} & & \frac{2}{5} \\
 & \diagdown & / \\
 & \frac{1}{2} & \\
 & / & \diagdown \\
 \left(\frac{1}{2} - \frac{2}{5}\right) = \frac{1}{10} & & \left(\frac{4}{7} - \frac{1}{2}\right) = \frac{1}{14} \\
 \therefore \text{Required Ratio} = \frac{14}{10} \\
 = 7 : 5
 \end{array}$$

Q34. b

$$(b) \text{ Required area} = \frac{22}{7} \times 7 \times 7$$

Q35. b

$$= 154 \text{ cm}^2$$