

RRB PO PRELIMS 2022 MEMORY BASED PAPER QUANTITATIVE APTITUDE



IBPS RRB PO Prelims 2022 (Quantitative Aptitude) Memory based Paper

Line Graph DI (Demand & Production)	5 Q
Caselet DI	5 Q
Tabular DI	5Q
Wrong Number Series	5 Q
Quadratic	5 Q
Arithmetic	10 Q
Approximation	5 Q
Total	40 Q

Q1. 8, 72, 121, 157, 162, 198, 207

- (a) 8
- (b) 72
- (c) 121
- (d) 157
- (e) 162

Q2. 2, 3, 8, 27, 112, 560, 3396

- (a) 2
- (b) 3
- (c) 8
- (d) 27
- (e) 560

Q3. 451, 502, 550, 604, 655, 706, 757

- (a) 451
- (b) 502
- (c) 550
- (d) 604
- (e) 655

Q4. 20, 10, 15, 37.8, 131.25

- (a) 20
- (b) 10
- (c) 15
- (d) 37.5
- (e) 131.25

Q5. 400,800,1200,1500,2000

- (a) 400
- (b) 800
- (c) 1200

- (d) 1500
- (e) 2000

Directions (6-10) What approximate value should come in place of the question mark (?) in the following questions?

Q6. $(77.987\% \text{ of } 358) + (68.55\% \text{ of } 729) = ?$

- (a) 780
- (b) 705
- (c) 840
- (d) 825
- (e) 695

Q7. $989.001 + 1.00982 \times 76.792 = ?$

- (a) 1150
- (b) 1070
- (c) 1240
- (d) 1188
- (e) 1044

Q8. $63.9872 \times 9449.8780 \div 243.003 = (?)^2$

- (a) 60
- (b) 75
- (c) 90
- (d) 40
- (e) 50

Q9. $\{\sqrt{2} \times (79)\}^2 + \{\sqrt{2} \times (49)\}^2 = ?$

- (a) 15484
- (b) 16384
- (c) 17284
- (d) 18184
- (e) 19484

Q10. $193.261 + 275.373 + 136.93 + 17.229 = ?$

- (a) 723.793
- (b) 622.793
- (c) 632.673
- (d) 593.603
- (e) 713.683

Directions (11-15): Two equations I and II are given below in each question. You have to solve these equations and give answer

- (a) if $x < y$

- (b) if $x > y$
- (c) if $x \leq y$
- (d) if $x \geq y$
- (e) if $x = y$ or no relation can be established

Q11. I. $x^2 - 14x + 48 = 0$

II. $y^2 + 6 = 5y$

Q12. I. $x^2 + 9x + 20 = 0$

II. $y^2 + 7y + 12 = 0$

Q13. I. $x^2 - 11x + 24 = 0$

II. $2y^2 - 9y + 9 = 0$

Q14. I. $16x^2 + 20x + 6 = 0$

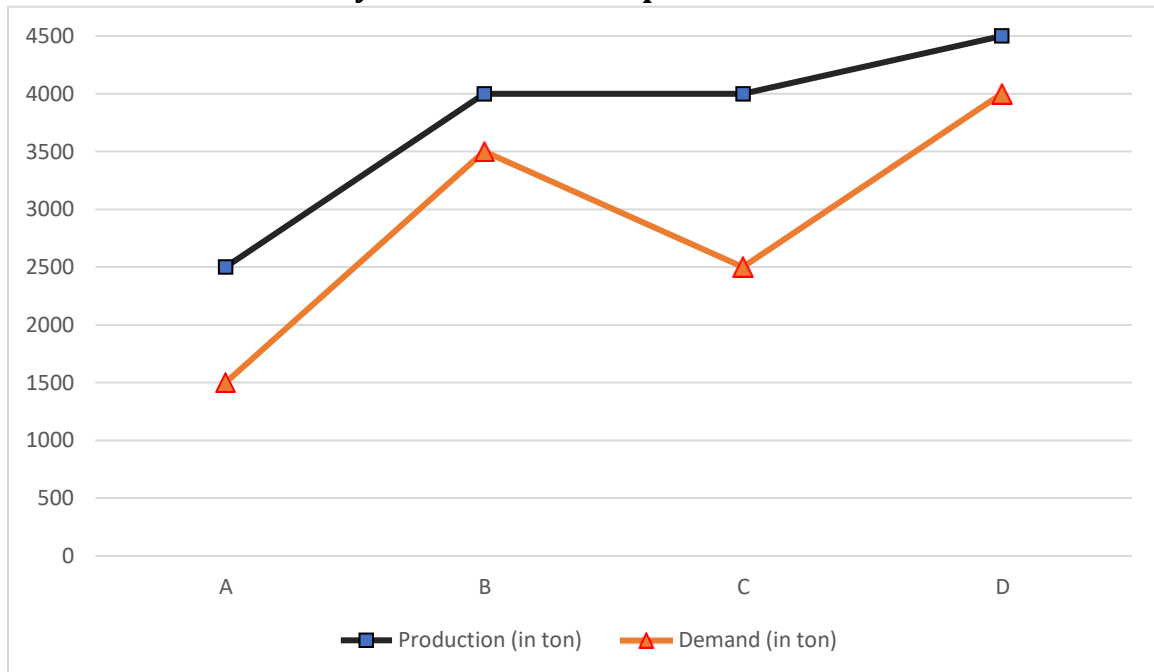
II. $10y^2 + 38y + 24 = 0$

Q15. I. $x^2 = 529$

II. $y = \sqrt{529}$

Direction (16 - 20): The below Line Graph given below shows the production and demand (in tons) of items of four different (A, B, C & D) manufacturing companies in 2021.

Read the data carefully and answer the questions.



Q16. If the non-demanded items of company B were handed to company D and it added these items them in its demanded items, then find the new demanded items (in tons) of company D?

- (a) 6500
- (b) 5500
- (c) 5000
- (d) 3500
- (e) 4500

Q17. If production of items of company D increased by 30% in 2022 than previous year, and demand is decreased by 20% then find the difference between production and demand of items of company D in 2022

- (a) 2000 ton
- (b) 2400 ton
- (c) 2300 ton
- (d) 2200 ton
- (e) 2100 ton

Q18. What is the ratio of sum of demand of items of company A and company B to production of items of company C ?

- (a) 5: 4
- (b) 3: 2
- (c) 5: 3
- (d) 4: 9
- (e) 3: 7

Q19. Sum of production of item A and D is approximately what percentage more or less than the demand of items of company B ?

- (a) 96% more
- (b) 76% more
- (c) 86% more
- (d) 56% more
- (e) 46% more

Q20. If 90% total demand of company A and 20% of total demand of company C did not delivered at final delivery, then find the difference between the items (in tons) did not delivered at the time of final delivery for company A and C ?

- (a) 950
- (b) 900
- (c) 850
- (d) 800
- (e) 70

Q21. A can do a piece of work in 24 days. B can do the same work in 16 days and C can do the same work in $\frac{5}{4}$ th time required by both A and B together. A and B work together for 6 days, then C complete the remaining work. How many day did C work ?

- (a) $\frac{13}{2}$ days

- (b) $\frac{11}{2}$ days
- (c) $\frac{9}{2}$ days
- (d) 7 days
- (e) 6 days

Q22. Mohit borrowed Rs. 12000 on C.I. at the rate of 20% for three years. He paid at the end of first year $\frac{1}{8}$ th of amount and end of second year $\frac{1}{6}$ th of amount. Find how much amount Mohit have to pay at the end of third year to complete his debt?

- (a) 15220 Rs
- (b) 15520Rs
- (c) 15340 Rs
- (d) 15120Rs.
- (e) 15560 Rs

Q23. A and B entered into partnership business with capital of Rs. 1200 and Rs. 1800 respectively and both withdraw $\frac{1}{3}$ rd of capital at the end of fourth month and $\frac{1}{2}$ nd of remaning at end of eight months. If they got total profit of Rs. 5000 at the end of one year, then find the difference between profit shares of A and B?

- (a) 2000 Rs
- (b) 1500 Rs
- (c) 1600 Rs
- (d) 1000 Rs
- (e) 800 Rs

Q24. Train A crosses a platform of 98 m length in 24 sec. Another Train B of same length as Train A crosses a pole in 12 sec. If speed of train A is 20% more than speed of train B. Find length of train A.

- (a) 80 m
- (b) 65 m
- (c) 70 m
- (d) 75 m
- (e) 90 m

Q25. The ratio of age of Raman and his son is 7 : 2. If the difference of their ages 7 year ago is 25. Then find the sum of ages of Satish and his son 12 year hence ?

- (a) 79
- (b) 72
- (c) 69
- (d) 59
- (e) 63

Directions (26-30):- In the table, the total number of eligible voters of 5 villages with % valid votes out of total casted votes are given . Answer the question based on following data –

Note: In each village, 10% eligible voters did not cast their votes and only two person stand in the election.

Village	Total voters	Valid votes
A	10000	60%
B	15000	55%
C	8000	80%
D	12000	90%
E	13500	80%

26. Find ratio b/w number of invalid votes casted in village C to the number of valid votes casted in village B.

- (a) 7 : 33
- (b) 32 : 165
- (c) 31 : 163
- (d) 17 : 154
- (e) None of these

27. If the winner got 52% of valid votes in village B. Find the no. of votes got by the person who lost?

- (a) 4500
- (b) 5578
- (c) 3200
- (d) 3564
- (e) 4578

28. Find the average number of valid votes of village A and village D together?

- (a) 7560
- (b) 5500
- (c) 6400
- (d) 6760
- (e) None of these

29. Find the number of votes by which the winner won in the election if the person who lose got 40% of valid votes in village E?

- (a) 2140
- (b) 1780
- (c) 1944
- (d) 1550
- (e) 1850

30. Find how much more/less percent were the valid votes casted in village C in comparison to village A?

(a) $\frac{50}{3}\%$

(b) $\frac{51}{7}\%$

(c) $\frac{11}{3}\%$

(d) $\frac{16}{3}\%$

(e) $\frac{20}{3}\%$

31. The average of marks obtained by 150 candidates in a certain examination is 50. If the average marks of passed candidates is 55 and that of the failed candidates is 25, what is the number of candidates who passed the examination?

(a) 125

(b) 120

(c) 140

(d) 160

(e) 135

Q32. A shopkeeper gives 10% discount on marked price and earns a profit of 25%. If cost price of thing is Rs. 2160, what is the marked price of thing ?

(a) Rs. 2500

(b) Rs. 2700

(c) Rs. 3500

(d) Rs. 3000

(e) None of these

33. In an election, 20% voters did not cast their votes while 10% votes were declared invalid. If the winner got 55% votes and won by 36 votes, find total number of voters who casted their votes?

(a) 400

(b) 500

(c) 360

(d) 420

(e) 480

34. In a 54 litre mixture of spirit and water, the ratio of spirit to water is 4 : 5. What amount of water should be added to this mixture to make the ratio of spirit to water 2 : 5 ?

(a) 26 li

(b) 30 li

(c) 28 li

(d) 36 li

(e) 32 li

35. The area of a circle is equal to the area of a rectangle whose perimeter equals to 35 m and breadth equal to 5.5 m. What is the area of the circle ?

- (a) 88 sq m
- (b) 72 sq m
- (c) 66 sq m
- (d) 54 sq m
- (e) None of these

Directions (36-40): Read the following information carefully and answer the questions given below.

There are 2 different companies i.e., Y and Z. number of male employees working in company Y is 250 and number of male employees working in company Z is equal to number of female employees working in Y. total number of male employees in both company is 400 and number of female employees working in company Z is double to that of female employees in company Y.

Q36. Find the total no. of female employees working in both companies?

- (a) 410
- (b) 445
- (c) 460
- (d) 450
- (e) 475

Q37. Find the difference between no. of male working in company Y to that of company Z?

- (a) 145
- (b) 120
- (c) 87
- (d) 98
- (e) 100

Q38. No. of female working in company Z is what % no. of male working in same company?

- (a) 225%
- (b) 175%
- (c) 150%
- (d) 200%
- (e) 250%

Q39. Find the average no. of male working in company Y and no. of female working in company Z?

- (a) 275
- (b) 225
- (c) 145
- (d) 190
- (e) 280

Q40. Find the total no. of employees (male +female) in both the company?

- (a) 810
- (b) 850
- (c) 620
- (d) 910
- (e) 1020

Solution

Ans.1 (e)

$$\begin{array}{cccccccc} 8 & 72 & 121 & 157 & 182 & 198 & 207 & \\ + 64 & + 49 & + 36 & + 25 & + 16 & + 9 & & \end{array}$$

Ans.2(e)

$$2 \times 1 + 1 = 3$$

$$3 \times 2 + 2 = 8$$

$$8 \times 3 + 3 = 27$$

$$27 \times 4 + 4 = 112$$

$$112 \times 5 + 5 = 565$$

$$565 \times 6 + 6 = 3396$$

Ans.3 (c)

$$\begin{array}{cccccccc} 451 & 502 & 553 & 604 & 655 & 706 & 757 & \\ + 51 & + 51 & + 51 & + 51 & + 51 & + 51 & & \end{array}$$

Ans.4(e)

$$20 \times 0.5 = 10$$

$$10 \times 1.5 = 15$$

$$15 \times 2.5 = 37.5$$

$$37.5 \times 3.5 = 131.25$$

Ans.5 (d)

$$400 + 400 = 800$$

$$800 + 400 = 1200$$

$$1200 + 400 = 1600$$

$$1600 + 400 = 2000$$

6. Ans.(a)

$$\text{Exp.} \approx 280 + 500$$

$$\approx 780$$

7. Ans.(b)

$$\text{Exp.} \approx 990 + 77.5$$

$$\approx 1070$$

8. Ans.(e)

$$\text{Exp.} \approx 50$$

9. Ans.(c)

$$\begin{aligned} \text{Exp. ?} &= 2 \times (79)^2 + 2 \times (49)^2 = \\ &= 2 \times [6241 + 2401] = 17284 \end{aligned}$$

10. Ans.(b)

$$\text{Exp. } 622.793$$

11. Ans.(b)

$$\text{Exp. I. } x^2 - 14x + 48 = 0$$

$$\Rightarrow x^2 - 8x - 6x + 48 = 0$$

$$\Rightarrow x(x - 8) - 6(x - 8) = 0$$

$$\Rightarrow (x - 6)(x - 8) = 0$$

$$\Rightarrow x = 6, 8$$

$$\text{II. } y^2 + 6 = 5y$$

$$\Rightarrow y^2 - 5y + 6 = 0$$

$$\Rightarrow y^2 - 3y - 2y + 6 = 0$$

$$\Rightarrow y(y - 3) - 2(y - 3) = 0$$

$$\Rightarrow (y - 2)(y - 3) = 0$$

$$\Rightarrow y = 2, 3$$

$$\therefore x > y$$

12. Ans.(c)

$$\text{Exp. I. } x^2 + 9x + 20 = 0$$

$$\Rightarrow x^2 + 5x + 4x + 20 = 0$$

$$\Rightarrow x(x + 5) + 4(x + 5) = 0$$

$$\Rightarrow (x + 4)(x + 5) = 0$$

$$\Rightarrow x = -4, -5$$

$$\text{II. } y^2 + 7y + 12 = 0$$

$$\Rightarrow y^2 + 4y + 3y + 12 = 0$$

$$\Rightarrow y(y + 4) + 3(y + 4) = 0$$

$$\Rightarrow (y + 3)(y + 4) = 0$$

$$\Rightarrow y = -3, -4$$

$$\therefore x \leq y$$

13. Ans.(d)

$$\text{Exp. I. } x^2 - 11x + 24 = 0$$

$$\Rightarrow x^2 - 9x - 3x + 24 = 0$$

$$\Rightarrow x(x - 8) - 3(x - 8) = 0$$

$$\Rightarrow (x - 3)(x - 8) = 0$$

$$\Rightarrow x = 3, 8$$

$$\text{II. } 2y^2 - 9y + 9 = 0$$

$$\Rightarrow 2y^2 - 6y - 3y + 9 = 0$$

$$\Rightarrow 2y(y - 3) - 3(y - 3) = 0$$

$$\Rightarrow (2y - 3)(y - 3) = 0$$

$$\Rightarrow y = \frac{3}{2}, 3$$

$$\therefore x \geq y$$

14. Ans.(b)

$$\text{Exp. I. } 16x^2 + 20x + 6 = 0$$

$$\Rightarrow 16x^2 + 12x + 8x + 6 = 0$$

$$\Rightarrow 4x(4x + 3) + 2(4x + 3) = 0$$

$$\Rightarrow (4x + 2)(4x + 3) = 0$$

$$\Rightarrow x = -\frac{2}{4}, -\frac{3}{4}$$

$$\text{II. } 10y^2 + 38y + 24 = 0$$

$$\Rightarrow 10y^2 + 30y + 8y + 24 = 0$$

$$\Rightarrow 10y(y + 3) + 8(y + 3) = 0$$

$$\Rightarrow (10y + 8)(y + 3) = 0$$

$$\Rightarrow y = -\frac{8}{10}, -3$$

$$\therefore x > y$$

15. Ans.(c)

$$\text{Exp. I. } x^2 = 529$$

$$\Rightarrow x^2 - 529 = 0$$

$$\Rightarrow (x - 23)(x + 23) = 0$$

$$\Rightarrow x = 23, -23$$

$$\text{II. } y = \sqrt{529}$$

$$y = 23$$

$$\therefore x \leq y$$

16. Ans(e)

Required new demanded items (in tons) of company D

$$= (4000 - 3500) + 4000$$

$$= 4500$$

17. Ans. (d)

Production of items of company D in

$$2022 = 4500 \times \frac{120}{100} = 5400 \text{ ton}$$

Demand of items of company D in

$$2022 = 4000 \times \frac{80}{100} = 3200 \text{ ton}$$

$$\text{Difference} = 5400 - 3200 = 2200$$

18. Ans. (a)

$$\text{Required ratio} = \frac{1500 + 3500}{4000}$$

$$= \frac{5000}{4000} = 5:4$$

19. Ans. (c)

$$\text{Required percentage} = \frac{(2500 + 4000) - 3500}{(2500 + 4000)} \times 100$$

$$= \frac{3000}{6500} \times 100 = 46.15\% \approx 46\%$$

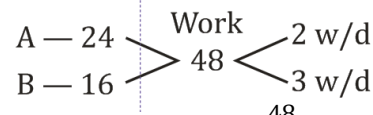
20. Ans(c)

Required difference

$$= 1500 \times \frac{90}{100} - 2500 \times \frac{20}{100}$$

$$= 1350 - 500 = 850$$

21. Ans. c



$$(A + B) \text{ together} = \frac{48}{5} \text{ day}$$

$$C \text{ alone} = \frac{48}{5} \times \frac{5}{4} \text{ days} = 12 \text{ days}$$

Work remain

$$= 48 - 5 \times 6 = 18$$

$$C \text{ work} = \frac{18 \times 12}{48} = \frac{9}{2} \text{ days}$$

22. Ans. d

Amount after one year

$$= (12000 + 12000 \times \frac{20}{100}) \times \frac{7}{8} = 12600 \text{ Rs.}$$

Amount after second year

$$= (12600 + 12600 \times \frac{20}{100}) \times \frac{5}{6} = 12600 \text{ Rs.}$$

Amount have to pay at the end of third year

$$= 12600 + 12600 \times \frac{20}{100} = 15120 \text{ Rs.}$$

23. Ans. d

Profit ratio of A : B

$$\begin{aligned}
&= (1200 \times 4 + 1200 \times \frac{2}{3} \times 4 \\
&\quad + 1200 \times \frac{2}{3} \times \frac{1}{2} \times 4) \\
&\quad : (1800 \times 4 \\
&\quad + 1800 \times \frac{2}{3} \times 4 \\
&\quad + 1800 \times \frac{2}{3} \times \frac{1}{2} \times 4) \\
&= 9600 : 14400 \\
&= 2 : 3
\end{aligned}$$

$$\begin{aligned}
\text{Required difference} &= \frac{3-2}{5} \times 5000 \\
&= 1000 \text{ Rs.}
\end{aligned}$$

24. Ans. c

Let length of train A = length of train B = ℓ m

$$\begin{aligned}
\Rightarrow \frac{P+98}{24} &= \frac{P}{12} \times \frac{120}{100} \\
\ell &= 70 \text{ m}
\end{aligned}$$

25. Ans. c

Let the present age of Raman and his son be $7x$ and $2x$ respectively.

$$\begin{aligned}
7x - 2x &= 25 \\
\therefore x &= 5
\end{aligned}$$

$$\therefore \text{Required sum} = 9 \times 5 + 24 = 69$$

26. Ans. b

$$\begin{aligned}
\text{Required ratio} &= \frac{8000 \times \frac{90}{100} \times \frac{20}{100}}{15000 \times \frac{90}{100} \times \frac{55}{100}} = 32 : \\
&165
\end{aligned}$$

27. Ans. d

$$\begin{aligned}
\text{No. of votes got by loser} &= 15000 \times \\
&\frac{90}{100} \times \frac{55}{100} \times \frac{48}{100} \\
&= 3564
\end{aligned}$$

28. Ans. a

$$\begin{aligned}
\text{Required average} &= \\
&\frac{10000 \times \frac{90}{100} \times \frac{60}{100} + 12000 \times \frac{90}{100} \times \frac{90}{100}}{2} \\
&= 7560
\end{aligned}$$

29. Ans. c

$$\begin{aligned}
\text{No. of votes by which winner won} \\
&= 13500 \times \frac{90}{100} \times \frac{80}{100} \left[\frac{60}{100} - \frac{40}{100} \right] \\
&= 13500 \times \frac{90}{100} \times \frac{80}{100} \times \frac{20}{100} \\
&= 1944
\end{aligned}$$

30. Ans. e

$$\begin{aligned}
\text{Valid votes casted in village C} &= \\
&8000 \times \frac{90}{100} \times \frac{80}{100} \\
&= 5760
\end{aligned}$$

$$\begin{aligned}
\text{Valid votes casted in village A} &= \\
&10000 \times \frac{90}{100} \times \frac{60}{100} \\
&= 5400
\end{aligned}$$

$$\begin{aligned}
\text{Required percent} &= \frac{(5760-5400)}{5400} \times 100 \\
&= \frac{360}{5400} \times 100 \\
&= \frac{20}{3} \%
\end{aligned}$$

No. of valid votes casted in village C were $\frac{20}{3}\%$ more than in village A.

31. Ans. a

$$\begin{aligned}
55 \times x + 25 \times (150 - x) &= 150 \times \\
&50 \\
x &= 125
\end{aligned}$$

32. Ans. (d)

Exp.

Let marked price is Rs. x

$$\begin{aligned}
\therefore \text{Selling price} &= \frac{90x}{100} \\
\text{But selling price} &= 2160 \times \frac{125}{100} \\
&= 2700
\end{aligned}$$

$$\begin{aligned}
\therefore \text{Marked price} &= 2700 \times \frac{100}{90} \\
&= \text{Rs. } 3000
\end{aligned}$$

33. Ans. a

Let total eligible voters be $100x$ votes casted = $80x$

$$\text{Valid votes} = \frac{80x}{100} \times 80x = 72x$$

Now,

$$55\% \text{ of } 72x - 45\% \text{ of } 72x = 36$$

$$10\% \text{ of } 72x = 36$$

$$x = \frac{360}{72}$$

$$x = 5$$

$$\text{Votes casted} = 80 \times 5 = 400$$

34. Ans. b

$$\begin{aligned} \text{Initial quantity of spirit} &= \frac{4}{9} \times 54 \\ &= 24 \text{ li} \end{aligned}$$

$$\begin{aligned} \text{And, that of water} &= 54 - 24 \\ &= 30 \text{ li} \end{aligned}$$

Let x li of water is added

$$\therefore \frac{24}{30+x} = \frac{2}{5}$$

$$\Rightarrow x + 30 = 60$$

$$\Rightarrow x = 30 \text{ li}$$

35. Ans. c

$$\text{Perimeter of rectangle} = 2(\ell + b)$$

$$35 = 2(\ell + 5.5)$$

$$35 = 2\ell + 11$$

$$\Rightarrow 2\ell = 24$$

$$\Rightarrow \ell = 12 \text{ m}$$

$$\begin{aligned} \text{Area of rectangle} &= \ell \times b = 12 \times 5.5 = \\ &= 66 \text{ sq m} \end{aligned}$$

$$\therefore \text{Area of rectangle} = \text{Area of circle}$$

$$\text{Hence, area of circle} = 66 \text{ sq m}$$

Direction (36-40):

Number of male employees working in company Y = 250

Total number of male employees in both company = 400

Number of male employees working in company Z = $400 - 250 = 150$

Number of female employees working in Y = 150

Number of female employees working in company Z = $2 \times 150 = 300$

36. Ans (d)

Total no. of female employees working in both company = $150 + 300 = 450$

37. Ans (e)

$$\text{Req. difference} = 250 - 150 = 100$$

38. Ans (d)

$$\text{Req. \%} = \frac{300}{150} \times 100 = 200\%$$

39. Ans (a)

$$\text{Req. average} = \frac{250+300}{2} = 275$$

40. Ans (b)

$$\begin{aligned} \text{Req. sum} &= 250 + 150 + 150 + \\ &= 300 = 850 \end{aligned}$$



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RRB PO PRELIMS 2022 MEMORY BASED PAPER REASONING



IBPS RRB PO Prelims 2022 (Reasoning Ability) Memory based

Distance and Direction	3 Q
Blood Relation	3 Q
Inequality	3 Q
Syllogism (only a few)	4 Q
Alpha Numeric Series	3 Q
Number Based	1 Q
Word Based	1 Q
Uncertain No. Puzzle	4 Q
Circular seating Puzzle	4 Q
Month Based Puzzle (4 months , 2dates)	5 Q
Linear seating Arrangement +variable (color)	5 Q
Box Puzzle	4 Q
Total	40 Q

Directions (1-3): Study the following information carefully and answer the questions which follow—

From point A, Saroj starts to walk in south direction and covers a distance of 10 meters then she takes a left turn and covers a distance of 16 meters and reaches at point B. From point H, Sudha starts to walk in north direction and covers a distance of 5 meters then after she takes a right turn and covers a distance of 4 meters and finally takes a left turn and covers a distance of 5 meters and reaches at point B.

Q1. Point H is in which direction from Point A?

- (a) East
- (b) South
- (c) North
- (d) South-east

(e) South-west

Q2. Point H is in which direction with respect to Point B?

- (a) North-West
- (b) North
- (c) South-East
- (d) South
- (e) South- West

Q3. Point A is in which direction from Point B?

- (a) East
- (b) South
- (c) North-west
- (d) South-east
- (e) South-west

Directions (4-6): Study the following information carefully and answer the questions that follow:

There are six members i.e. A, B, C, D, E and F in a family having two generation such that there are three female members in the family. There is two married couple in the family. A is mother-in-law of F, who is brother in law of B, who is unmarried brother of D. E is father of D. D is not married to F.

Q4. How F is related to D?

- (a) Brother
- (b) Sister
- (c) Husband
- (d) Father
- (e) None of these

Q5. How B is related to E?

- (a) Father
- (b) Son
- (c) Son-in-law
- (d) Brother-in-law
- (e) Daughter

Q6. If G is daughter of F then how E is related to G?

- (a) Paternal Grandfather
- (b) Father-in-law
- (c) Father
- (d) Maternal Grandfather

(e) None of these

Directions (7 -9): In each of these questions, relationship between some elements is shown in the statement (s). These statements are followed by two conclusions. Read the statements and give answer:

- (a) if only conclusion I follows.
- (b) if only conclusion II follows.
- (c) if either conclusion I or II follows.
- (d) if neither conclusion I nor II follows.
- (e) if both conclusions I and II follow.

Q7. Statement: $P \geq I \leq N < J < R > A$

Conclusions: I. $I \leq R$
II. $P > A$

Q8. Statement: $U < I, N > I, V = E, R \geq V, N < R$

Conclusions: I. $U > R$
II. $R \geq E$

Q9. Statement: $S \leq E, N \leq T, T > H, E \geq N$

Conclusions: I. $S > H$
II. $N \leq E$

Directions (10-13): In each of the questions below. Some statements are given followed by conclusions/group of conclusions numbered I and II. You have to assume all the statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given two conclusions logically follows from the information given in the statements.

Q10.Statement: All paper is glue.

Some paper is pencil.

Only a few pencil is wood.

Conclusions:

I. Some pencil is glue.

II. All pencil can be wood.

(a) Both I and II follow

(b) Either I or II follows

(c) Only II follows.

(d) Only I follows.

(e) Neither I nor II follows

Q11.Statements:I. All laptop are bottle

II. All bottle are bag

III. No bottle is desk

Conclusions:

I. Some desk can never be laptop

II. Only bag are laptop

- (a) Both I and II follow
- (b) Either I or II follows
- (c) Only II follows.
- (d) Only I follows.
- (e) Neither I nor II follows

Q12. Statement: Only a few mobile is headphone.

Only a few headphone is wire.

All wire is mouse

Conclusions: I. Some mouse is headphone

II. Some mobile is not wire

- (a) If only conclusion I follows
- (b) If only conclusion II follows.
- (c) If either conclusion I or II follows.
- (d) If neither conclusion I nor II follows.
- (e) If both conclusions I and II follow.

Q13. Statement: Only a few pen is paper.

No paper is pencil.

Some pencil is eraser

Conclusions: I. Some eraser is not paper.

II. No pen is pencil

- (a) If only conclusion I follows.
- (b) If only conclusion II follows
- (c) If either conclusion I or II follows.
- (d) If neither conclusion I nor II follows./
- (e) If both conclusions I and II follow.

Directions (14-16): These questions are based on the following arrangement. Study the arrangement carefully to answer these questions.

@ 7 D O E L 8 G P A % T 3 1 H # U J 9 B S = 6 Z \$ R 2 K * C M V

Q14. How many such symbols are there in the above arrangement, each of which is immediately followed by a vowel?

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

Q15. Which of the following element is exactly in the middle of 3rd element from the right end and the 10th element from the left end of the arrangement?

- (a) 8
- (b) P
- (c) T

- (d) B
- (e) None of these

Q16. How many such symbols are there in the above arrangement, each of which is immediately preceded by a number and also immediately followed by a consonant?

- (a) None
- (b) One
- (c) Two
- (d) Three
- (e) More than three

Directions (17-20): Study the following information carefully and answer the question given below.

There are nine boxes B, C, D, E, F, G, H, J and K are placed one above the another, but not necessarily in the same order.

Four boxes are placed between box E and box C and one of them are placed either at top or at bottom. Only one box is placed between box C and box F, which placed below the box C. Three boxes are placed between box G and box H. Box H is placed neither just above nor just below box C. Only one box is placed between H and K. Not more than two boxes are placed below the box K. Only one box is placed between box D and B, which placed above box J. Box E and Box K are not placed adjacent to each other.

Q17. Which of the following box is placed at top?

- (a) B
- (b) E
- (c) C
- (d) G
- (e) None of these

Q18. What is position of box G from bottom?

- (a) 5th
- (b) 1st
- (c) 2nd
- (d) 8th
- (e) None of these

Q19. How many boxes are placed above the box J?

- (a) None
- (b) Two
- (c) Three
- (d) One
- (e) More than three

Q20. Which of the following box is placed just below box D?

- (a) C
- (b) K
- (c) G
- (d) H
- (e) None of these

Q21. How many pairs of letters are there in the word 'ESCAPADE' which has as many letters between them as we have in the English alphabetical series (from both forward as well as backward direction)?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) More than four

Directions(22-25): Study the following information carefully and answer the questions given below:

Eight persons M, N, O, P, Q, R, S and T are sitting around a circular table but not necessarily in the same order. M sits 3rd to the left of O, who faces opposite direction with respect to M. There are two persons sit between O and T. Q sits 3rd to the right of T and faces to R. N sits 2nd to the right of S, who sits 3rd to the left of P and from these three persons, only one person is facing outside from the center. S sits opposite to the one who sits immediate left of R.

Q22. How many persons are not facing towards the center?

- (a) None
- (b) Two
- (c) Four
- (d) Five
- (e) None of these

Q23. Who among the following sits 2nd to the right of P?

- (a) N
- (b) T
- (c) R
- (d) M
- (e) Q

Q24. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?

- (a) T and M
- (b) P and R
- (c) T and S
- (d) M and S

(e) R and O

Q25. What is the position of N with respect to T?

- (a) 3rd to the right
- (b) 2nd to the left
- (c) 3rd to the left
- (d) 2nd to the right
- (e) immediate left

Directions (26-30): Study the following information carefully and answer the questions given below:

Seven persons i.e. T, K, A, R, X, O and M are seated on a bench and face south direction. They like different phones i.e. Lava, MI, Redmi, Airtel, Jio, Nokia and Lenovo, but not in same order. O likes Lava and sits 3rd left of K who sits near to right end of the row. The one who likes Nokia sits at middle of this bench. X sits 3rd right of the one who likes Nokia. Only 2 persons sit to the left of one who likes Lava. R sits 2nd left of M and likes Jio phone. The one who likes Redmi sits immediate right of the one who likes Lenovo but X does not like Redmi and Airtel. T is near to K.

Q26. Who among the following sits at extreme left end of the row?

- (a) R
- (b) O
- (c) M
- (d) A
- (e) X

Q27. How many person sit between the one who likes Lenovo and the one who likes Airtel Mobile?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) None of these

Q28. Who among the following sits immediate right of R?

- (a) O
- (b) M
- (c) K
- (d) T
- (e) X

Q29. Who among the following likes MI phone?

- (a) T
- (b) M
- (c) K
- (d) O
- (e) X

Q30. Who among the following sits 3rd left of T?

- (a) A
- (b) R
- (c) X
- (d) K
- (e) O

Q31..How many such pair of numbers are there in the given number "361938479" (Both backward and forward) same as far as according to numeric series?

- (a)One
- (b)Two
- (c)Three
- (d)More than three
- (e)None of these.

Directions(32-35): Study the following information carefully and answer the questions given below:

A certain number of persons sit in row facing north. Q sits fifth to the right of V. Three person sit between V and A. S sits fifth to the left of A. Only one person sits between V and D. X sits third to the right of D. Only three persons sit between X and C. Q is third from the right end. Only six persons sit between P and T. P is an immediate neighbour of X. S is not the immediate neighbour of D.

Q32. If S is at extreme left end, then how many persons are sitting in the row?

- (a)11 /11
- (b)17 /17
- (c)13 /13
- (d)14 /14
- (e)12 /12

Q33. If B sits exactly between T and S then what is the position of B with respect to A?

- (a) Third to the left
- (b) Third to the right
- (c) Second to the left
- (d) Fourth to the right
- (e) None of these

Q34. If G sits second to the right of P, then how many persons are sitting between G and V?

- (a) Two
- (b) One
- (c) Five
- (d) Three
- (e) None of these

Q35.. If R sits third to the left of S, then how many persons are sitting between R and D?

- (a) Twelve
- (b) Ten
- (c) Fifteen
- (d) Nine
- (e) None of these

Direction: (36-40):Study the following information carefully and answer the questions given below.

Eight persons M, N, O, K, T, Y, E, and S were born on four different months i.e. January, March, April, August on two different dates i.e. 2nd and 5th of these months but not necessarily in the same order.

O was born on 2nd of March. One person was born between O and E. Y was born on a month which have 30 number of days. No one was born between S and E. S was born before E. M was neither born on an odd number date nor in the month of August. N and K were born on the same date. N was born before K.

Q36. Who among the following person was born on 5th of January?

- (a) N.
- (b) E.
- (c) Y.
- (d) T.
- (e) K.

Q37. How many persons were born between Y and T?

- (a) More than three
- (b) Three
- (c) Two
- (d) None
- (e) One

Q38. Four of the following are alike in a certain way and hence form a group find the one which does not belong to that group?

- (a) M, O
- (b) N, S
- (c) O, N
- (d) S, Y
- (e) E, T

Q39. Which of the following pair of persons were born in the same month?

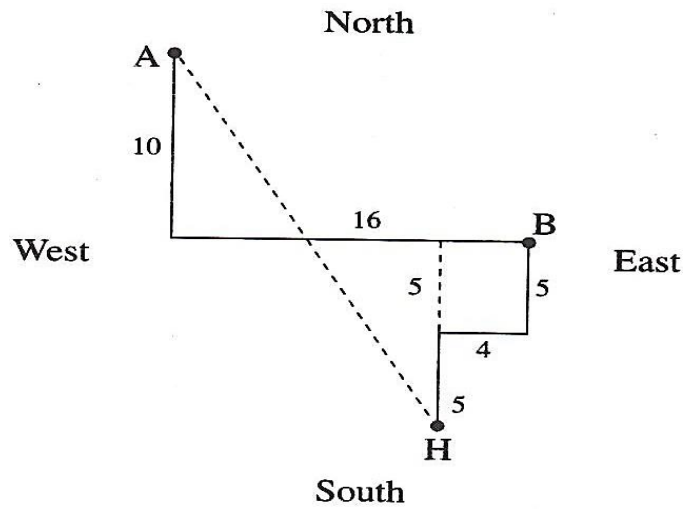
- (a) M, O
- (b) N, S
- (c) N, O
- (d) K, E
- (e) T, K

Q40. Which of the following statement is true regarding K?

- (a) K was born on the month of August
- (b) T was born after K
- (c) Two persons were born between K and O
- (d) K was born on an even number date
- (e) None of them is true

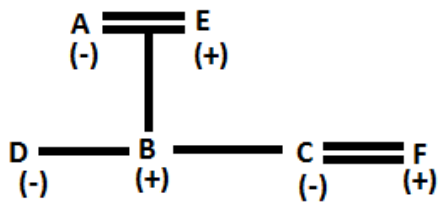
Solution

Direction (1-3):



1. Ans. d
2. Ans. e
3. Ans. c

Direction (4-6):



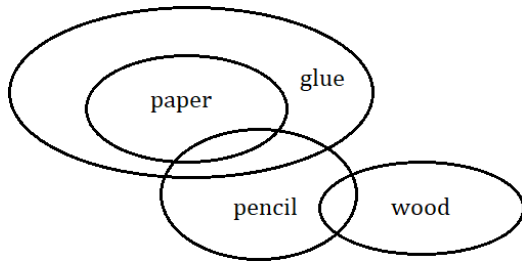
4. Ans.(e)
5. Ans.(b)
6. Ans.(d)

Direction (7-9):

7. Ans.(d)
8. Ans.(b)
9. Ans.(b)

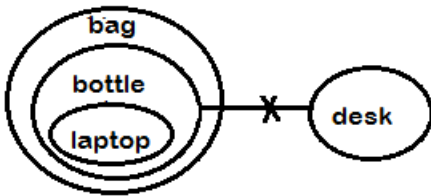
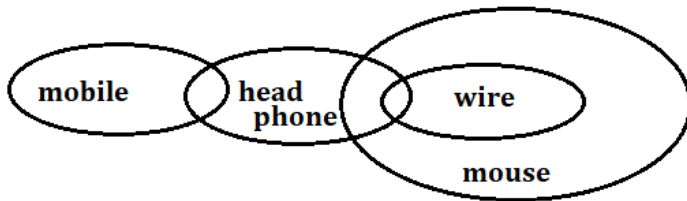
Direction (10-13):

10. Ans. d

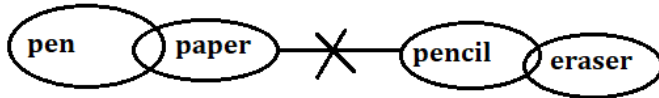


11. Ans. a

12. Ans. a



13. Ans. a



14. Ans.(a)- # U

15. Ans.(d)

16. Ans.(a)

Direction (17-20):

Box
E
B
J
D
G
C
K
F
H

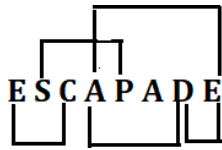
17. Ans. b

18. Ans. a

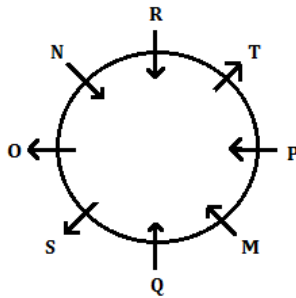
19. Ans. b

20. Ans. c

21. Ans. e



Direction (22-25):



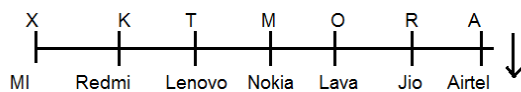
22. Ans. e

23. Ans. c

24. Ans. c

25. Ans. b

Directions (26-30):



26. Ans.(d)

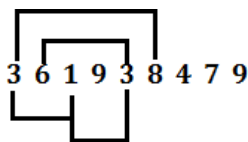
27. Ans.(c)

28. Ans.(a)

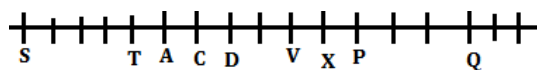
29. Ans.(e)

30. Ans.(b)

31. Ans. d



Direction (32-35):



32. Ans. b

33. Ans. a

34. Ans. d

35. Ans. d

Direction (36-40):

Exp:

Months	Date	Persons
January	2	M
	5	N
March	2	O
	5	S
April	2	E
	5	Y
August	2	T
	5	K

36. Ans. a

37. Ans. d

38. Ans. c

39. Ans. e

40. Ans. a