RBI Grade B 2022 Quant - Recollected Questions' Answer Key

Quantitative Aptitude

Question	Answer	Question	Answer	Question	Answer
1	D	11	E	21	A
2	A	12	C	22	E
3	A	13	C	23	B
4	B	14	B	24	D
5	B	15	D	25	C
6	A	16	B	26	A
7	E	17	E	27	D
8	C	18	C	28	B
9	A	19	E	29	E
10	D	20	C	30	A

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RBI Grade B 2023 Quant - Recollected Questions

Quantitative Aptitude

Q1. Given below are three equations I, II and III where 'a' and 'b' are the roots of equation I where (a < b) and 'c' and 'd' are roots of equation II where (c < d). On this basis, solve for equation III and find the relationship between 'z' and 'k' given that k = 11

I. $3x(x - 12) + 72 = x^2 - 11x - 5$

II. $5y(y - 3) - 64 = y(3y - 2) - 19$

III. $(z + 2a - d)^2 = 169$

A. z > k

B. z < k

C. z = k or the relationship cannot be established

D. z ≥ k

E. z ≤ k

Q2. Given below are three equations i.e. I, II and III. If roots of the equation 'I' are 'p' and 'q', respectively such that p > q while the roots of the equation 'II' are 'm' and 'n' respectively such that m > n, then find the value of 'K'.

I. $2x^2 - 6(x + 4) = 3x + 11$

II. $2y^2 - 12(y - 4) = 7y + 6$

III. $(15m/2) - 8q = 9p - 4n + K^2$

A. 11

B. 4

C. 7

D. 9

E. 14

Q3. The series given below contains a missing number 'P'. Find the value of 'P' and determine which among the given three statement(s) is/are true.

74, 290, 241, 753, 672, 'P', 1551

I: The nearest perfect square number to 'P' is 1600

II: 'P' is divisible by 11

III: (P + 28) is a multiple of 50.

A. Only I

B. Only II

C. Only I and II

D. Only II and III

E. Only III

Q4. Given below are two number series I and II where the missing numbers in series I and II are 'P' and 'Q', respectively. Find the value of 'P' and 'Q' and find which among the given options gives the correct value of (P - Q).
I: 5000, 4000, 3000, 2100, P, 819
II: 4, 6, 15, 56, Q, 1644
A. 1120
B. 1090
C. 980
D. 1240
E. 1050

Q5. Given below are two number series I and II where the missing numbers in series 'I' and 'II' are 'P' and 'Q', respectively. Find the value of 'P' and 'Q' and find which among the given options gives the L.C.M of 'P' and 'Q'.
I: 77, 106, 48, P, 19, 164
II: 141, 98, Q, 63, 71, 96
A. 1080
B. 1200
C. 724
D. 960
E. 1440

Direction (Q6-10) : Answer the questions based on the information given below.
A survey was conducted among a certain number of players who played games in at-least one of the levels i.e., National and International. Players who played only at national level played in at least one of the three trophies i.e., Ranji, Duleep and Irani while the players who played only at international level played in at least one of the two leagues i.e., CPL and BBL. Out of the total number of players, 10% had played at both levels and the number of players who played only at national level is 250 more than the number of players who played only at international level. 24% of players who played only at national level had played only Ranji which was 200 less than players who played only in CPL. Number of players who played in all three trophies i.e., Ranji, Duleep and Irani is 144 and is 52% less than the number of players who played only Ranji. Ratio of number of players who played only in BBL to number of players who played in both Ranji and Irani but not in Duleep is 25:(p + 3). Number of people who played only at national level but not played the Irani trophy is 630. (2p - 0.8) % of the number of players who played only at national level had played only in the Irani trophy. The number of players who played only at international level and played only in CPL was (p + 10) % of total number of players. (2p + 1.6) % of players who played at national level had played in both Ranji and Duleep trophy. Number of players who played both Ranji and Duleep but not the Irani trophy was 125% more than the number of players who played both Irani and Duleep but not Ranji.

Q6. Number of players who played exactly in one trophy is:

A. 650
B. 620
C. 690
D. 720
E. 740

Q7. Number of players who played only in the BBL is how much percent of the total number of players who played at the international level?

A. 40%
B. 30%
C. 24%
D. 50%
E. 45%

Q8. Ratio of number of players who played in both Ranji and Irani trophy but not in Duleep trophy to number of players who played in both Irani and Duleep trophy but not in Ranji trophy is:

A. 10: 9
B. 15: 14
C. 29: 20
D. 39: 20
E. None of these

Q9. Total number of players who played in CPL is:

A. 300
B. 500
C. 700
D. 750
E. 450

Q10. Difference between number of players who played in all three trophies and number of players who played in both leagues is:

A. $6p - 6$
B. $5p - 6$
C. $3p^2 - 25p + 6$
D. $5p^2 - 45p + 12$
E. None of these

Direction (Q11-15): Following is the data regarding the revenue and expenditure of 4 companies in 2018 and 2017. All figures are in Rs. crore.

Profit = Revenue – Expenditure

Percentage profit = $\frac{Profit}{Expenditure}$ × 100%

	2017		2018	
	Revenue	Expenditure	Revenue	Expenditure
Mckinsey	5800	5300	6000	5000
BCG	6000	5400	5600	4800
Bain	5000	4800	5400	4800
ATK	4800	4000	5000	4000

Q11. Which company in which year has seen the maximum percentage profit?

A. ATK in 2017
B. BCG in 2017
C. Bain in 2018
D. ATK in 2018
E. Mckinsey in 2018

Q12. Which company has seen the maximum percentage increase in profit from 2017 to 2018?

A. Mckinsey
B. BCG
C. Bain
D. ATK
E. 2 companies have the same percentage increase

Q13. What is the sum of the numerical values of the percentage profit of Mckinsey in 2018 and Bain in 2018?

A. 27.5
B. 25
C. 32.5
D. 38
E. 45

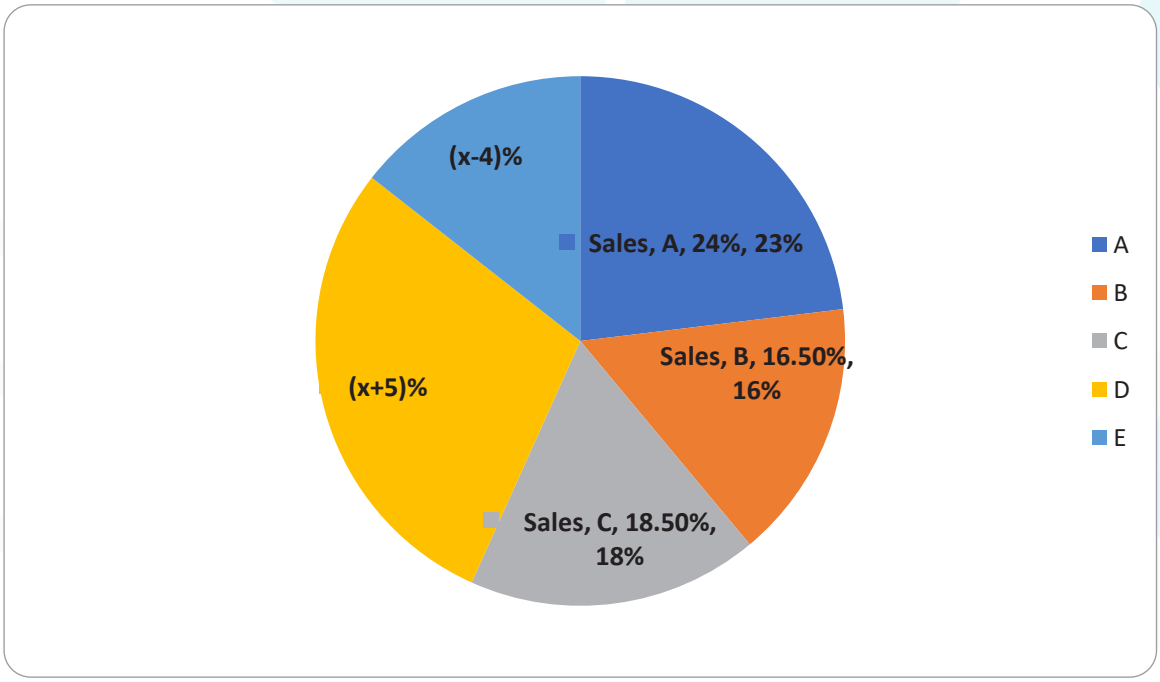
Q14. What is the ratio of the numerical values of the percentage profit of Mckinsey in 2017 to BCG in 2017?

A. 45: 53
B. 41: 51
C. 47: 61
D. 38: 65
E. 33: 61

Q15. For all 4 companies combined, what is the percentage (approximately) increase in the sum of their profits from 2017 to 2018?

A. 48%
B. 62%
C. 34%
D. 55%
E. 72%

Direction (Q16-Q20): Answer the questions based on the information given below.
Five different schools of a district participated in multiple tournaments during a year. Each school won some gold, silver and bronze medals. The pie chart given below shows the percentage distribution of the number of gold medals won by each school out of total gold medals won by all schools together.



The table chart given below shows the difference between the number of gold and silver medals won by each school and the percentage of number of bronze medals won by each school as a percentage of the number of silver medals won by that school.

School	Difference between number of gold and number of silver medals won	Percentage of number of bronze medals won by each school as percentage of number of silver medals won
A	116	84%
B	186	78%
C	104	(3.5x+1)%
D	120	75%
E	144	4x%

Note: Total number of medals won by school 'E' was 86 more than that by school 'D'.

Q16. Find the sum of the number of bronze medals won by school's 'A' and 'C' together.

A. 816
B. 664
C. 704
D. 752
E. None of these

Q17. Find the ratio between the number of bronze medals won by school 'E' and the number of gold medals won by school's 'B' and 'C' together, respectively.

A. 3: 5
B. 4: 7
C. 2: 5
D. 5: 7
E. None of these

Q18. Find the average number of medals won by school's 'C' and 'D' together.

A. 925
B. 890
C. 915
D. 935
E. None of these

Q19. Find the difference between the number of silver medals won by school 'A' and school 'D'.

A. 12x - 45
B. 8x + 45
C. 9x + 20
D. 12.5x - 15
E. 11x

Q20. If the number of silver medals won by school 'B' were 'm' and the number of gold medals won by school 'D' were 'n', then find the value of 3(m - n).

A. 150
B. 250
C. 175
D. 225
E. 200

Q21. The question consists of two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.
A shopkeeper sold an article. Find the selling price of the article.
Statement-I: The selling price of the article is 45% more than the cost price of the article. Marked price of the article is 10% more than the selling price, and the discount offered is Rs. 870.
Statement-II: Profit made by the shopkeeper is 45%. Had the article was sold for Rs. 300 more, the shopkeeper would have earned 50% profit.

A. The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
B. The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
C. The data either in statement I alone or in statement II alone are sufficient to answer the question.
D. The data given in both statements I and II together are not sufficient to answer the question.
E. The data in both statements I and II together are necessary to answer the question.

Q22. The question consists of four statements numbered "I, II, III and IV" given below it. You have to decide whether the data provided in any of the statement(s) alone is/are sufficient to answer the question.
There are only three people in a family i.e. father, mother and a child. If present ages of father and mother are in the ratio 10:9, respectively, then find the present age of the child.
Statement I: Ten years hence from now, the age of child will be 56% less than that of the father.
Statement II: Present age of a child is 70% less than that of the father and 24 years less than that of the mother.
Statement III: Six years ago, the age of the mother was 5 times the age of child. Six years hence from now, the age of father will be 28 years more than that of child.
Statement IV: Difference between present age of mother and father is 4 years and difference between present age of child and mother is 24 years.

A. Only I
B. Only II
C. Only I, II and III
D. Only II, III and IV
E. Only I and II

Q23. Harry, Ron and Cedrick started a business with an investment of 14: 15: 20. After 5 months, Harry invested an additional amount which was $\frac{2}{5}^{th}$ of the initial investment of Ron. 3 months after that, Ron increased his investment by an amount which was $\frac{1}{4}^{th}$ of Cedrick's initial investment and Cedrick increased his investment by an amount which was $\frac{2}{3}^{rd}$ of Ron's initial investment. After one year of business, the difference between the profit share of Ron and Harry was what percent of that between Ron and Cedrick?

A. 13.33%
B. 6.67%
C. 16.67%
D. 8.33%
E. 12.5%

Direction (Q24-26): In the question, two Quantities I and II are given. You have to solve both the Quantity to establish the correct relation between Quantity-I and Quantity-II and choose the correct option.
Q24. The speed of boat 'B' in still water is 8 km/h more than that of boat 'A'. The ratio of downstream speed of boat 'A' to upstream speed of boat 'B' is 9:8. The ratio of upstream speed of boat 'A' to downstream speed of boat 'B' is 6:11. (Both the boats are travelling in the same stream)
Quantity-I: Find the sum of distance travelled by boat 'A' downstream in 125 minutes and distance travelled by boat 'B' upstream in 75 minutes.