

Quantitative Aptitude for RRB NTPC

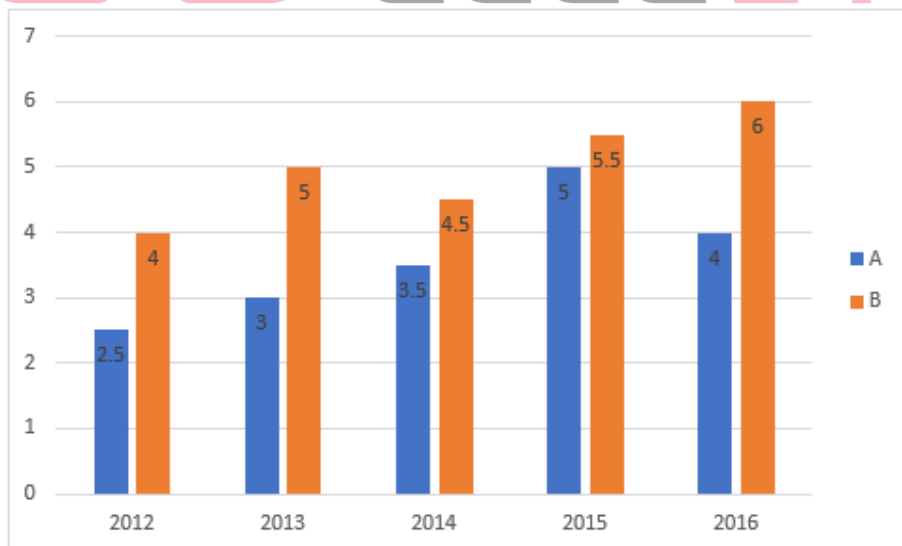
Q1. If $(x-7)^2 + (y+10)^2 + (z-6)^2 = 0$,
then find the value of $x+y+z$.

- (a) 1
- (b) 3
- (c) 5
- (d) 7

Q2. Find the forth proportional
to $12x^3, 9ax^2, 8a^3x$.

- (a) $4a^3$
- (b) $6a^4$
- (c) $5a$
- (d) $7a^5$

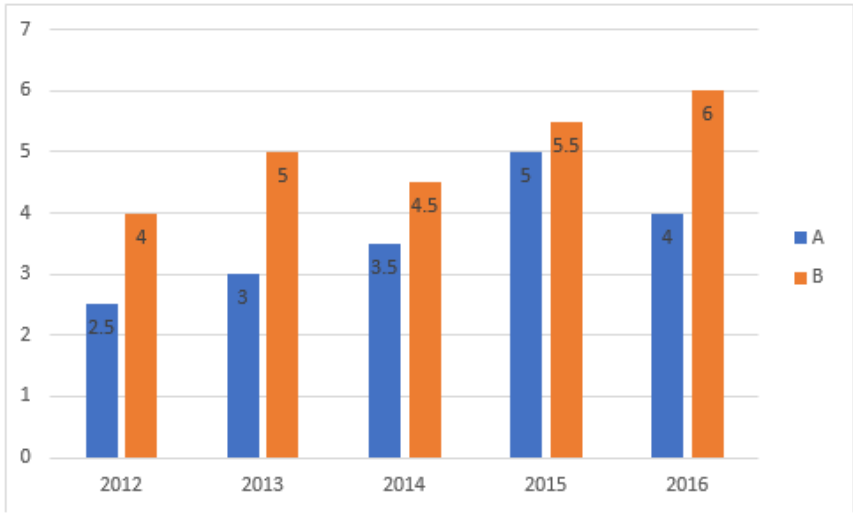
Q3. A book has been co-authored by X and Y. The prices of the book in India and abroad are Rs 800 and Rs 1000 respectively. The royalties earned on sale in India and abroad are 10% and 16% respectively. The royalty amount is distributed among X and Y in the ratio 5:3. The given Bar Graph presents the number of copies of the book sold in India (A) and abroad (B) during 2012-16. (1 unit in y axis is equal to 100books)



What is the ratio of royalties earned in the following cases – By X for sale of books in India in 2013 and 2014 and By Y for sale of books abroad in 2015 and 2016?

- (a) 62:117
- (b) 63:130
- (c) 65:138
- (d) 64:135

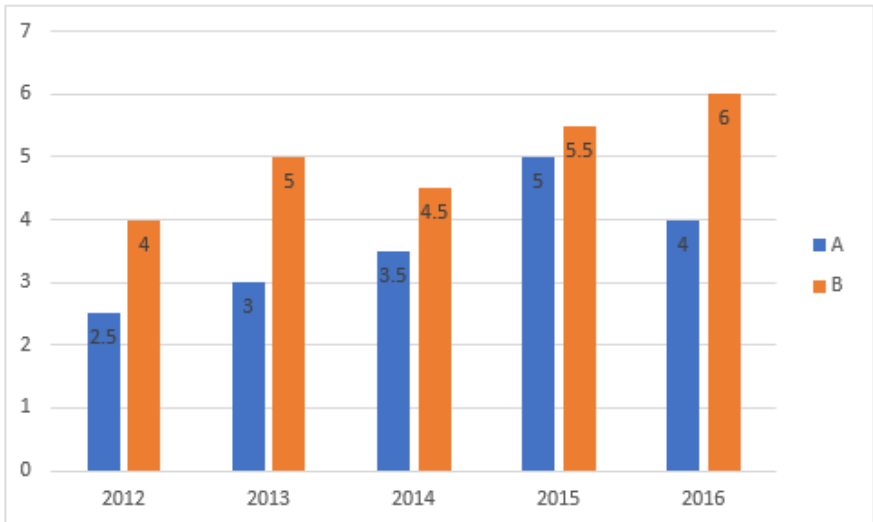
Q4. A book has been co-authored by X and Y. The prices of the book in India and abroad are Rs 800 and Rs 1000 respectively. The royalties earned on sale in India and abroad are 10% and 16% respectively. The royalty amount is distributed among X and Y in the ratio 5:3. The given Bar Graph presents the number of copies of the book sold in India (A) and abroad (B) during 2012-16.(1 unit in y axis is equal to 100books)



What is the total amount of royalty paid (in Rs) to the authors during the years 2012, 2013 and 2016?

- (a) 3,16,000
- (b) 2,73,400
- (c) 2,72,000
- (d) 2,71,600

Q5. A book has been co-authored by X and Y. The prices of the book in India and abroad are Rs 800 and Rs 1000 respectively. The royalties earned on sale in India and abroad are 10% and 16% respectively. The royalty amount is distributed among X and Y in the ratio 5:3. The given Bar Graph presents the number of copies of the book sold in India (A) and abroad (B) during 2012-16. (1 unit in y axis is equal to 100books)



What is the total number of the copies of the book sold in India during 2012-2015?

- (a) 2000
- (b) 1600
- (c) 1800
- (d) 1400

Q6. A sum of money placed at compound interest triples itself in 9 year. In how many years will it amount to 243 times itself?

- (a) 45 years
- (b) 36 years
- (c) 27 years
- (d) 54 years

Q7. The average of 5 consecutive integers starting with 'M' is 'N'. What is the average of 6 consecutive integers starting with (m+2)?

- (a) $n + 3$
- (b) $n + 2$
- (c) $\frac{2n+9}{2}$
- (d) $\frac{2n+5}{2}$

Q8. Working together printer A and B would finish a task in 48 minutes A alone would finish the task in 120 minutes. How many pages does the task contains if printer B prints 10 page a minute more than printer A?

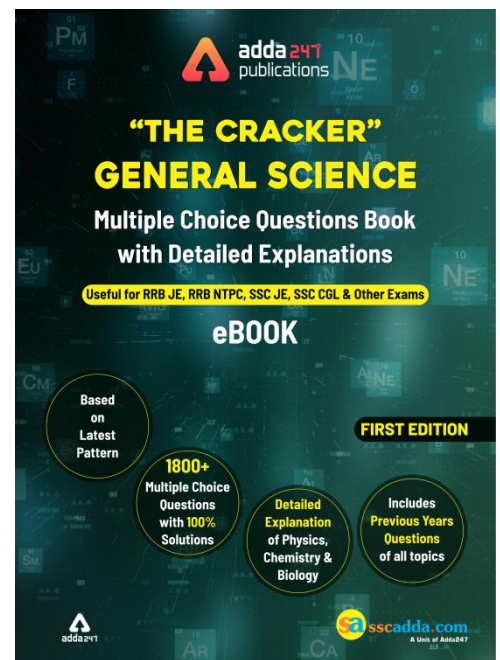
- (a) 2800
- (b) 2000
- (c) 2400
- (d) 1600

Q9. Two taps A and B can fill a tank in 48 minutes and 36 minutes. If both taps are opened together after how much time tap A is closed so that the whole tank fill in 25 min 30sec.

- (a) 12 min
- (b) 16 min
- (c) 18 min
- (d) 14 min

Q10. In an examination Ram scored 25 mark less than Rohit. Rohit scored 45 more marks than Sam. Rohan scored 75 marks which is 10 more marks than Sam. Ravi's score is 50 less than maximum marks of the test. What approximate percentage of marks did Ravi score in the examination if gets 34 marks more than Ram?

- (a) 60 %
- (b) 80%
- (c) 70 %
- (d) 85%



Q11. Average height of a group of people is 'P' cms. Among them, average height of 13 people is 'q' cms and the average of height of the remaining group is 'r' cms. Find the number of people in the group? ($p > r$ & $q > r$)

- (a) $\frac{p(q-r)}{(p-r)}$
- (b) $\frac{(q-r)}{(p-r)}$
- (c) $\frac{p-r}{13(p-r)}$
- (d) $\frac{13(q-r)}{(p-r)}$

Q12. PQRS is a cyclic quadrilateral such that PQ is the diameter of the circle circumscribing it and $\angle PSR = 147^\circ$, then what is the measure of $\angle QPR$

- (a) 33°
- (b) 57°
- (c) 133°
- (d) 123°

Q13. From a point P outside the circle with centre O, two tangents PA and PB are drawn to meet the circle at A and B respectively. If $\angle APB = 42^\circ$, then $\angle OAB$ is equal to-

- (a) 42°
- (b) 21°
- (c) 111°
- (d) 69°

Q14. If $x + x^{-1} = 13$, then $x^2 + x^{-2}$ is equal to-

- (a) 167
- (b) 173
- (c) 169
- (d) 165

Q15. $\frac{4.75 \times 4.75 \times 4.75 - 3.25 \times 3.25 \times 3.25}{47.5 \times 47.5 + 32.5 \times 32.5 + 47.5 \times 32.5}$ is equal to -

- (a) 1.5
- (b) 0.15
- (c) 0.0015
- (d) 0.015

Q16. If a train runs with the speed of $25 \frac{\text{km}}{\text{hr}}$ it reaches its destination 390 minutes late. However, if its speed is 35 km/hr, it is late by only 150 minutes. Find the distance covered by the train-

- (a) 340 km
- (b) 345 km
- (c) 350 km
- (d) 375 km

Q17. Two pipes A and B can fill an empty tank in 4 hours and 5 hours respectively. After how much time. Pipe B should close so that tank filled in 3 hours?

- (a) $1\frac{1}{2}$ hours
- (b) $1\frac{1}{4}$ hours
- (c) $1\frac{3}{4}$ hours
- (d) $1\frac{4}{5}$ hours

Q18. if $\tan\theta + \cot\theta = \pi$, then $\sec^2\theta + \operatorname{cosec}^2\theta = ?$

- (a) $\pi+2$
- (b) $\pi-2$
- (c) π^2-2
- (d) π^2

Q19. A sphere of radius 11 cm is melted and recast into small sphere of radius 3 cm each. How many sphere can be made?

- (a) 47
- (b) 48
- (c) 49
- (d) 50

Q20. The value of $\sin^2 30^\circ \sin^2 45^\circ + 2\tan^2 30^\circ - \sec^2 60^\circ$ is equal to-

- (a) $\frac{-13}{12}$
- (b) $\frac{-77}{24}$
- (c) $\frac{-25}{12}$
- (d) $\frac{-1}{12}$

Q21. Find the unit digit of

$$(1!)^{97} + (2!)^{96} + (3!)^{95} + \dots + (97!)^1?$$

- (a) 7
- (b) 6
- (c) 9
- (d) 3

Q22. Simplify $\frac{19}{43} + \frac{1}{2 + \frac{1}{3 + \frac{1}{1 + \frac{1}{4}}}}$?

- (a) 1
- (b) $19/43$
- (c) $43/19$
- (d) $38/43$




BILINGUAL

RRB NTPC & GROUP D

FOUNDATION BATCH 2.0

Starts Aug 4, 2020

11 AM to 3 PM

Q23. The number between 22000 and 23000 that is divisible by each of 12, 18, 21 and 32?

- (a) 22536
- (b) 22176
- (c) 22032
- (d) 22112

Q24. If p, q, r and s are positive real number such that

$$\frac{p}{2} = \frac{p+q}{3} = \frac{p+q+r}{5} = \frac{p+q+r+s}{7}, \text{ then } \frac{4p}{2q+2r+s} = ?$$

- (a) $\frac{1}{4}$
- (b) $\frac{1}{2}$
- (c) 1
- (d) None of these

Q25. Ram and Tanu invest in a business in the ratio 7:5. After 11 month Tanu leaves the business after withdrawing his investment. In the 1st year the business made a profit of Rs. 34750. What is Tanu's share of this profit?

- (a) 13675
- (b) 13750
- (c) 13350
- (d) 13450

Q26. A mixture contains H_2SO_4 and H_2O in the ratio of 3:x. when 200 ml of the mixture and 70 ml of H_2O are mixed, the ratio of H_2SO_4 and H_2O becomes 5:4. What is the value of x?

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

Q27. In an election two candidate participated. 11.11% votes were declared invalid and the winner got 70 percent of the total valid votes and won by 3200 votes. Find the total number of voters in the voting list.

- (a) 7000
- (b) 8500
- (c) 9000
- (d) 4500

Q28. In order to get $7\frac{9}{13}\%$ profit, a milkman mixed water in the milk and sold the mixture at a discount of $6\frac{2}{3}\%$. Find the concentration of water in the mixture?

- (a) 12.5%
- (b) 13.33%
- (c) 11.11%
- (d) 16%

Q29. A shopkeeper buys an article on discount of $5\frac{15}{17}\%$ on MP. Shopkeeper mark it Rs 600 more than CP and given $16\frac{2}{3}\%$ discount on it. Profit gained is Rs. 100. Find initial MP?

- (a) 2450
- (b) 2550
- (c) 2650
- (d) 3000

Q30. A certain sum of money becomes 1.1449 times of itself in 2 years. Then find the rate of interest if compounded annually.

- (a) 6%
- (b) 7%
- (c) 14%
- (d) 7.14%

