## Quantitative Aptitude for RRB NTPC

Q1. A train is moving at a speed of $132 \mathrm{~km} / \mathrm{h}$. If the length of the train is 110 metres, how long will it take to cross a railway platform, 165 metres long ?
(a) 5 s
(b) 7.5 s
(c) 10 s
(d) 15 s

Q2. A person travels equal distances with speeds of $3 \mathrm{~km} / \mathrm{hr}, 4 \mathrm{~km} / \mathrm{hr}$ and $5 \mathrm{~km} / \mathrm{hr}$ and takes a total time of 47 minutes. The total distance (in km ) is:
(a) 2
(b) 3
(c) 4
(d) 5

Q3. A and B travel the same distance at $9 \mathrm{~km} / \mathrm{h}$ and $10 \mathrm{~km} / \mathrm{h}$ respectively. If $A$ takes 20 minutes longer than $B$, the distance travelled by each is:
(a) 16
(b) 20
(c) 30
(d) None of these

Q4. A passenger train takes two hours less for a journey of 300 km if its speed is increased by $5 \mathrm{~km} / \mathrm{h}$ from its normal speed. The normal speed of the train is
(a) $35 \mathrm{~km} / \mathrm{h}$
(b) $50 \mathrm{~km} / \mathrm{h}$
(c) $25 \mathrm{~km} / \mathrm{h}$
(d) $30 \mathrm{~km} / \mathrm{h}$

Q5. A gun is fired at a distance of 3.32 km from Chauhan. He hears its sound 10 seconds later. Find the speed of the sound.
(a) $301 \mathrm{~m} / \mathrm{s}$
(b) $302 \mathrm{~m} / \mathrm{s}$
(c) $332 \mathrm{~m} / \mathrm{s}$
(d) $340 \mathrm{~m} / \mathrm{s}$


Q6. A walks around a circular field at the rate of one round per hour while B runs around it at the rate of six rounds per hour. They start in the same direction from the same point at 7.30 a.m. They shall first cross each other at:
(a) $7.42 \mathrm{a} . \mathrm{m}$.
(b) 7.48 a m .
(c) $8.10 \mathrm{a} . \mathrm{m}$.
(d) $8.30 \mathrm{a} . \mathrm{m}$.

Q7. A car driver travels from the plains to a hill station, which are 200 km apart at an average speed of 40 $\mathrm{km} / \mathrm{h}$. In the return trip he covers the same distance at an average speed of $20 \mathrm{~km} / \mathrm{h}$. The average speed of the car over the entire distance of 400 km is
(a) $16.56 \mathrm{~km} / \mathrm{h}$
(b) $17.89 \mathrm{~km} / \mathrm{h}$
(c) $26.67 \mathrm{~km} / \mathrm{h}$
(d) $35 \mathrm{~km} / \mathrm{h}$

Q8. Two trains of equal lengths are running on parallel tracks in the same direction at $46 \mathrm{~km} / \mathrm{h}$ and 36 $\mathrm{km} / \mathrm{h}$, respectively. The faster train passes the slower train in 36 sec . The length of each train is
(a) 50 m
(b) 80 m
(c) 72 m
(d) 82 m

Q9. In a 800 m race around a stadium having the circumference of 200 m , the top runner meets the last runner on the $5^{\text {th }}$ minute of the race. If the top runner runs at twice the speed of the last runner, what is the time taken by the top runner to finish the race?
(a) 20 min
(b) 15 min
(c) 10 min
(d) 5 min

Q10. Excluding stoppages, the speed of a train is $45 \mathrm{~km} / \mathrm{h}$ and including stoppages, it is $36 \mathrm{~km} / \mathrm{h}$. For how many minutes does the train stop per hour?
(a) 10 min .
(b) 12 min .
(c) 15 min .
(d) 18 min .

Q11. 1, 4, 6, 5, 11, $6 \ldots .$. . Find the sum first 100 terms?
(a) 7600
(b) 7800
(c) 7900
(d) 8000

Q12. 1-2-3+2-3-4+3-4-5+..... Find the sum of first 99 terms?
(a) -660
(b) -690
(c) -695
(d) -687

Q13. 1-2-3+2-3-4+3-4-5+..... Find the sum of first 100 terms?
(a) -629
(b) -626
(c) -625
(d) -622

Q14. Find the sum of all 2 digits no. which will exactly divided by 9 ?
(a) 565
(b) 585
(c) 525
(d) 575

Q15. Find the sum of all 2 digits no. which when divided by 9 , it leaves a remainder 3 ?
(a) 5655
(b) 585
(c) 525
(d) 590

Q16. If $T_{2}+T_{5}=8$ of an A.P \& $T_{3}+T_{7}=14$ of that A.P then, find the $11^{\text {th }}$ term?
(a) 20
(b) 21
(c) 22
(d) 19

Q17. If $t_{1}+t_{5}+t_{10}+t_{20}+t_{24}=225$, Find the sum of first $24^{\text {th }}$ term of that A.P?
(a) 800
(b) 700
(c) 850
(d) 1035

Q18.
If $S_{n}=\mathrm{n}^{2}+2 \mathrm{n}$, then find first term \& common difference?
(a) 4,5
(b) 5,6
(c) 3,2
(d) 6,5


Q19. If the sum of $1^{\text {st }} 11$ terms of an A.P is equal to sum of $1^{\text {st }} 19$ terms of that A.P then, Find the sum of $1^{\text {st }}$ 30 terms?
(a) 0
(b) 12
(c) 13
(d) -12

Q20.
If ratio of sum of $1^{\text {st }} n^{\text {term }}$ of 2 different $\mathrm{AP}=\frac{2 n-3}{3 n+1}$
Find the ratio of $9^{\text {th }}$ term of those 2 A.P?
(a) $31 / 52$
(b) $32 / 57$
(c) $33 / 58$
(d) $35 / 78$

Q21. If $\cot (A+B)=x$, then value of $x$ is
(a) $(\cot A \cot B+1) /(\cot B-\cot A)$
(b) $(\cot A \cot B+1) /(\cot B+\cot A)$
(c) $(\cot A \cot B-1) /(\cot B+\cot A)$
(d) $(\cot A \cot B-1) /(\cot B-\cot A)$

Q22. A shopkeeper, sold almonds at the rate Rs 1250 per kg and bears a loss of 7\%. Now if he decides to sell it at Rs 1375 per kg, what will be the result?
(a) 4.6 percent gain
(b) 2.3 percent loss
(c) 2.3 percent gain
(d) 4.6 percent loss

Q23. If the volume of a cylinder is 3850 cubic cm and height is 25 cm , what is its radius? (Take $\pi=22 / 7$ )
(a) 7 cms
(b) 14 cms
(c) 3.5 cms
(d) 10.5 cms

Q24. If $\tan ^{2} A-\sin ^{2} A=x$, then value of $x$ is
(a) $\tan ^{2} A \sin ^{2} A$
(b) $\cot ^{2} A \operatorname{cosec}^{2} A$
(c) $\tan A \sin A$
(d) $\cot A \operatorname{cosec} A$

Q25. Madhur works 2 times faster than Sagar. If Sagar can complete a job alone in 18 days, then in how many days can they together finish the job?
(a) 5 days
(b) 2 days
(c) 6 days
(d) 4 days

Q26. The bus fare between two cities is increased in the ratio 11:18. What would be the increase in the fare, if the original fare is Rs 550 ?
(a) Rs 350
(b) Rs 900
(c) Rs 180
(d) Rs 360

Q27. Dodecahedron has 30 edges. How many vertices does it have?
(a) 12
(b) 16
(c) 20
(d) 10

Q28. If $x y=22$ and $x^{2}+y^{2}=100$, then what will be the value of $(x+y) ?$
(a) 12
(b) 144
(c) 72
(d) 6

Q29. Which of the following equations has equal roots?
(a) $x^{2}-13 x+22=0$
(b) $\mathrm{x}^{2}-7 \mathrm{x}+10=0$
(c) $x^{2}-2 x+26=0$
(d) $4 x^{2}+8 x+4=0$

Q30. The point $P(5,-2)$ divides the segment joining the points $(x, 0)$

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