# Quantitative Aptitude Sunday Mega Quiz for SSC CHSL

**Q1. There are 90 students in a class out of which 70% are from village A and others are from village B. The average score of students from village B in a test is 20% more than that from village A. if the average score of all the students is 53 Then what is the average score of the students from village B ?**

(a) 54
(b) 60
(c) 64
(d) 50

**Q2. A is 20% more than B, B is 25% more than C, C is 60% less than D and D is 20% more than E. Based on the above information, which of the following is true ?**

(a) D is 60% less than B.
(b) E is 28% more than A.
(c) A is 40% less than D.
(d) C is 24% less than A.

**Q3. In Δ ABC, D and E are the points on sides AB and AC, respectively, such that DE || BC. If DE : BC is 3 : 5 , then (area of Δ ADE ) : (Area of quadrilateral DECB ) is :**

(a) 9 : 16
(b) 3 : 4
(c) 9 : 25
(d) 5 : 8

**Q4. In ΔABC, AB = 7cm, BC = 24 cm, and AC = 25 cm. If G is the centroid of the triangle, then what is the length (in cm ) of BG ?**

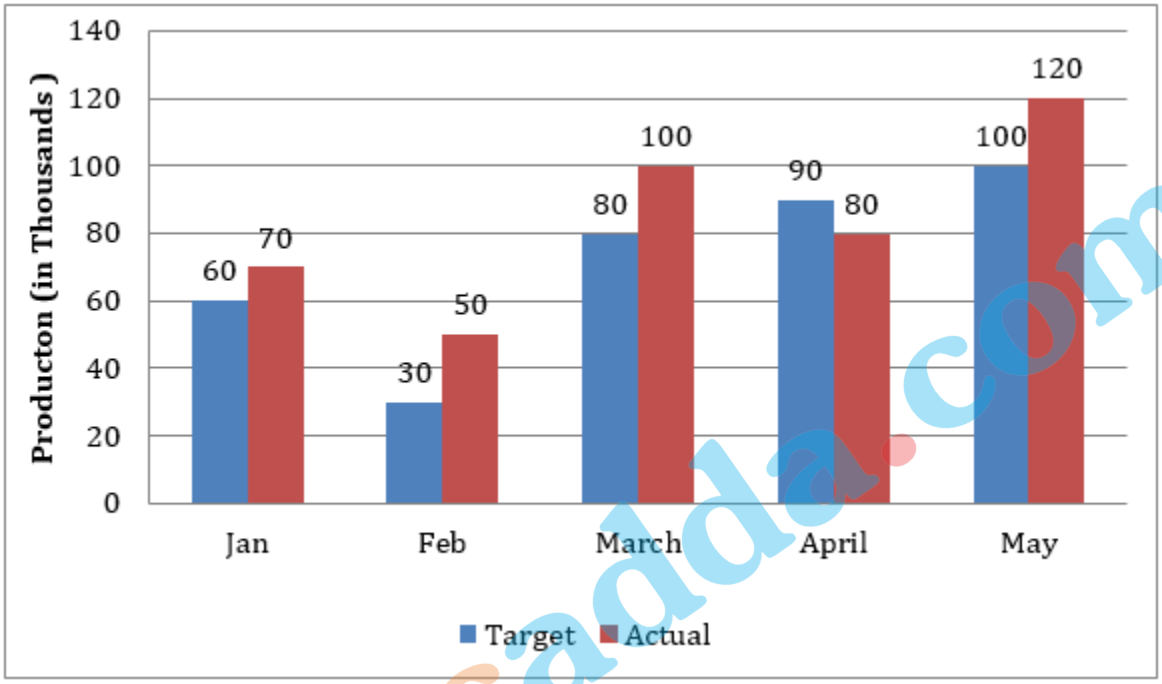
(a) 10
(b) $8\frac{1}{3}$
(c) $8\frac{2}{3}$
(d) 9

**Q5. If 30 persons take 10 day complete a certain work working 8 hours a day, then 40 persons should work how many hours a day so that the work is completed in 6 day ?**

(a) 6
(b) 10
(c) 8
(d) 12

Q6. The volume of a right circular cone is 924 $cm^3$. If its height is 18 cm, then the area of its base (in $cm^2$) is:
(a) 154
(b) 132
(c) 176
(d) 198

Q7. The given Bar Graph present the Target and Actual production of AC Machines (numbers in thousands) of a factory over five months .




The total target production of AC Machines in February. April and May was what percentage less than the total actual production of AC Machines over all five months (correct to one decimal place) ?
(a) 4(b) 2%
(b) 46.8%
(c) 47.1%
(d) 47.6%

Q8. If the eight-digit number 342x18y6 is divisible by 72, then what is the value of $\sqrt{9x+y}$ . for the largest value of y ?
(a) $2\sqrt{7}$
(b) $4\sqrt{7}$
(c) 8
(d) 6

Q9. If $\cot\theta = \frac{1}{\sqrt{3}}$, then the value of $\frac{2-sin^2\theta}{1-\cos^2\theta} + (\text{cosec}^2\theta + \sec\theta)$ is :
(a) 4
(b) 6
(c) 7
(d) 5

Q10. Two circles of radii15 cm and 12cm intersect each other, and the length of their common chord is 18 cm. what it the distance (in cm) between their centers ?

(a) $18 + \sqrt{7}$

(b) $15 + \sqrt{7}$

(c) $12 + 2\sqrt{7}$

(d) $12 + 3\sqrt{7}$

Q11. The sides AB and AC of Δ ABC are produced to points D and E, respectively. The bisectors of ∠CBD and ∠BCE meet at P. if ∠A=72° . then the measure of ∠P is:

(a) 36°

(b) 45°

(c) 60°

(d) 54°

Q12. If x+y+z=19, xyz=216 and dxy+yz+zx=114, then the value of $\sqrt{x^3 + y^3 + z^3 + xyz}$ is:

(a) 32

(b) 30

(c) 28

(d) 35

Q13. The value of $\frac{tan13° \, tan37° \, tan45° \, tan53° \, tan77°}{2cosec^2 60°(cos^2 60° - 3cos60° + 2)}$ is:

(a) 2

(b) 1

(c) 3/2

(d) 1/2

Q14. In Δ ABC, D is a point on side AB such that BD =2 cm and DA = 3 cm. E is a point on BC such that DE || AC, and AC=4 cm. Then (area of ΔBDE) :(Area of trapezium ACED) is:

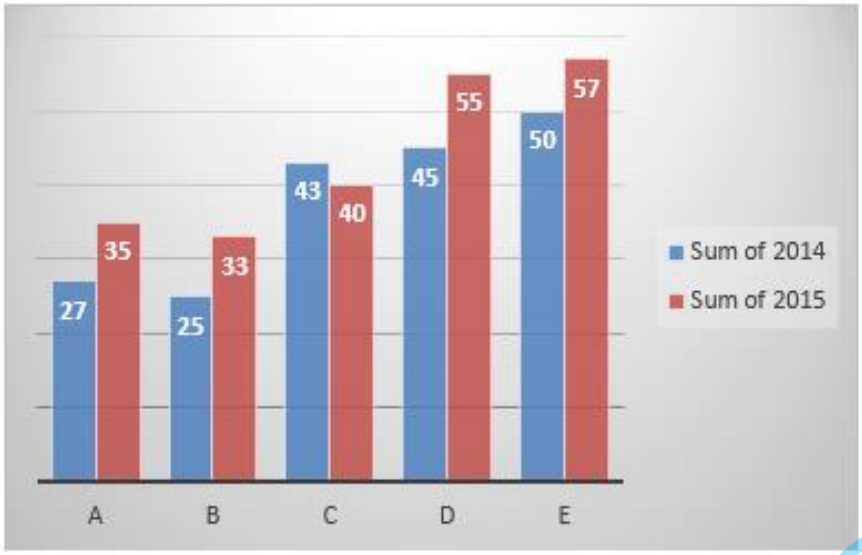
(a) 4:21

(b) 2:5

(c) 1:5

(d) 4:25

Q15. The given Bar Graph Presents the number different types of vehicles (in lakhs) exported by a company during 2014 and 2015.




The average number type A, B and D vehicles exported in 2015 was x% less than the number of type E vehicles exported in 2014. What is the value of x?

(a) 18
(b) 24
(c) 20
(d) 25

Q16. If $\cos^2\theta - \sin^2\theta - 3\cos\theta + 2 = 0, < \theta < 90°$, then what is the value of $4\text{cosec}\theta + \cot\theta$ ?

(a) $3\sqrt{3}$
(b) 4
(c) $4\sqrt{3}$
(d) 3

Q17. If $a^2 + 4b^2 + 49c^2 + 18 = 2(2b+28c-a)$ , then the value of $(3a + 2b + 7c)$ is :

(a) 0
(b) 2
(c) 1
(d) 3

Q18. Two trains of same length are running on parallel tracks in the same direction at 54 km/h and 42 km/h respectively. The faster train passes the other in 63 seconds . What it the length (in meters) of each train ?

(a) 90
(b) 81
(c) 105
(d) 210

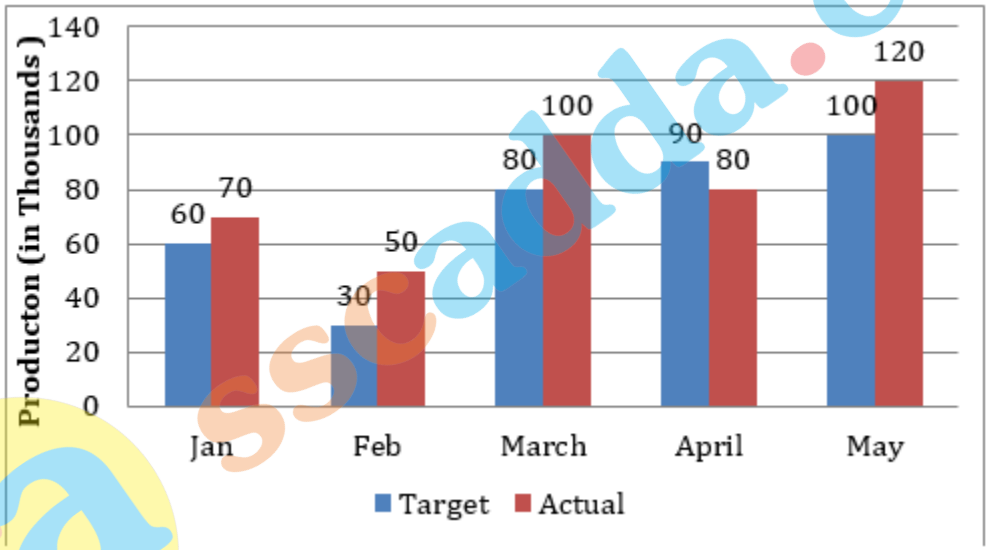
**Q19. Two concentric circles are of radii 15 cm and 9 cm. what is the length of the chord of the larger circle which is tangent to the smaller circle?**

(a) 24 cm
(b) 18 cm
(c) 20 cm
(d) 25 cm

**Q20. The simple interest on a certain sum for 3 ½ year at 10% per annum is Rs. 2,940. What will be the compound interest on the same sum for 2 ½ year at the same rate when interest is compounded yearly (nearest to a rupee) ?**

(a) Rs. 2,272
(b) Rs. 2,227
(c) Rs. 2,327
(d) Rs. 2,372

**Q21. The given Bar Graph present the Target and Actual production of AC Machines (numbers in thousands) of a factory over five months .**




**The actual production of AC Machines in April was what percentage more than the average target production of AC Machines over five months ?**

(a) $10\frac{1}{9}\%$
(b) $11\frac{1}{9}\%$
(c) 9%
(d) 10%

**Q22.** The value of $\frac{3\div\{5-5\div(6-7)\times 8+9\}}{4+4\times 4\div 4\ of\ 4}$ is :

(a) 1/45
(b) 1/18
(c) 1/90
(d) 1/3

**Q23.**

If $a + b + c = 5$, $a^2 + b^2 + c^2 = 27$, and

$a^3 + b^3 + c^3 = 125$, then the value of 4abc is :

(a) -20
(b) -15
(c) 15
(d) 20

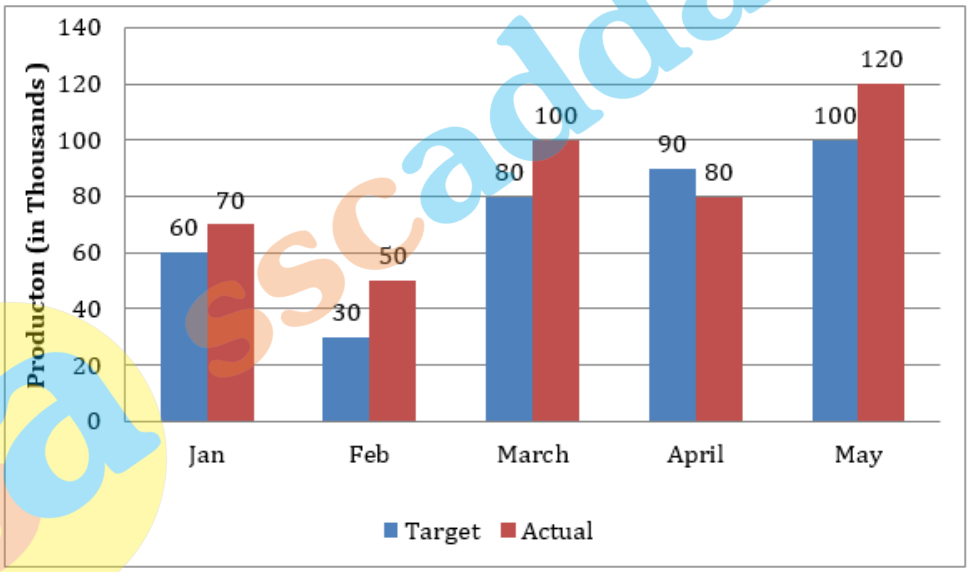
**Q24.**

If $3\sqrt{3}x^3 - 2\sqrt{2}y^3 = (\sqrt{3}x - \sqrt{2}y)(Ax^2 - Bxy + Cy^2)$,

then the value of $(A^2 - B^2 + C^2)$ is :

(a) 10
(b) 17
(c) 7
(d) 1

**Q25. The given Bar Graph present the Target and Actual production of AC Machines (numbers in thousands) of a factory over five months .**




**In which month the actual production of AC Machines was 25% more than the target production?**

(a) February
(b) March
(c) January
(d) May