



SSC CGL Tier 2 (Maths) Memory Based Questions 8th August 2022 English PDF

SSC CGL Tier 2 Memory Based Questions Asked Paper 1 (Quantitative Ability) English PDF

1. If $x+1/x^2=1$ find the value of x^6+1/x^6 .
2. If $x + y = 1$ find the value of $x^3+3xy +y^3$.
3. X, y and x are the three sides of the triangle and $X^2 + y^2 > z^2$ where z is the largest side of triangle, then which type of triangle it is.
4. The sum of three prime numbers x, y and z is 70 and $z>y>x$ then find the value of z.
5. $x^3+y^3 = 27$ then $x + y = ?$
6. $x^3+1/x^3 = \sqrt{3}$, then $x^6+1/x^6=?$
7. Two circles of same radius of 36 cm intersect each other at their centres. Find the common chord.
8. The diameter of the circle is 20 cm. What angle is made by the chord of length 10 cm of the same circle at the centre.
9. A container contained a mixture of milk and water in the ratio 2 : 3. When 10 litres of the mixture was taken out and 10 litres of water was poured into the container this process repeated two more times. Find the percentage milk in the final mixture.
10. The area of the two similar triangle ABC and DEF are 25 and 36. If $AB = 4$ then find the value of DE?
11. Two cars X and Y starts simultaneously at the same time from A and B speed of 54 km/hr and 36 km/hr respectively. In how many seconds will they meet each other if the distance between them is 250m?
12. Find the value of $12+23+34+\dots\dots\dots+1920$.
13. A can complete 14 of the work in 16 days whereas B can complete 23 of work in 32 days. In how many days A and B together can complete the whole work ?
14. ABC and PQR are two right angled triangles which are congruent to each other. The sides of triangle ABC are 8 cm, 6 cm and 10 cm and it is right angle at B. If angle A = x, then find the value of angle R.
15. If the compound interest on a certain sum for 2 years at 8% per annum is Rs. 8125, then what will be the simple interest (in Rs.) on the same sum at the same rate for 2 years?
16. Two successive discount of 16% and 12 % is equivalent to single discount of :-
17. If $\sec A = 9/41$ then find the value of $\cot A$.
18. A, B and C can do a piece of work in 11 days, 22 days and 33 days respectively. They work together in such a way that A and B work on first day, B and C work on 2nd day and C and A work on 3rd day and so on. In how many days total work will be completed.



19. The selling price of two article is Rs 1020 each. If there is 28% profit on first article and 14% loss on second article then find the cost price of both the articles.
20. How many composite numbers are there between 53 and 97.
21. The ratio of the income of B, C, D and E is 2 : 3 : 4 : 5 and the increment in their salaries is 20%, 30%, 40% and 50% respectively. If the salary of E after increment is Rs 560 then find the original sum of their salaries.
22. Find the overall simple interest on a sum of Rs 20000 at 10% rate for 3 years and on a sum of Rs 30000 at 20% rate for 3 years.
23. There is a 14% profit if there is a discount of 5% on an article. Find the profit percent if a discount of 11% is given.
24. If $a + b = 6$ and $ab = 5$ then find the value of $a^3 + b^3$.
25. Simplified value of $\tan A + \tan A$
26. Curved surface area of a hemisphere is 66 cm^2 . Find the total surface area of hemisphere.
27. Volume and height of a cuboid are 4800 cm^3 and 20 cm. Find the area of its base.
28. Diameter of a quadrilateral is 36 cm and length of perpendicular drawn from the vertex to diameter is 24 cm. Find the area of the quadrilateral.
- $(\tan A + \sec A - 1)/(\tan A - \sec A + 1) = ?$
29. $\sin 230 + \tan 245 + \cos 260 = ?$
30. Two trains of length 300 m and 500 m are travelling at a speed of 108 km/hr and 162 km/hr respectively. If the distance between them is 250 m then in how much time they cross each other.
31. If the radius of the base of a right circular cylinder is doubled keeping the height Same. What is the percentage change in its volume ?
32. If $x^3 + y^3 = 19$ and $xy = -6$ then $1/x-1 + 1/y-1 = ?$
33. A person sold an article at a loss of 20%. Had he sold it for Rs 640 more, he would have gained 20%. find the cost price of the article.
34. A, B and C are three partners who invest 20000, 25000 and 30000 respectively. After 4 month A invest Rs 4000 more, after 6 months B withdrew Rs 4000 and after 5 months C add Rs 8000. What is the ratio of their profit after one year.
36. Volume of cylinder of radius r and height h is 90. A new cylinder of radius $2r$ and height h is formed, find the volume of new cylinder.
37. A triangle of sides 12,20 and 21 cm respectively. Find the ratio of inradius and circumradius of the triangle.



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