[9] MISCELLANEOUS QUESTIONS (1)

1. Which term is Zero in the Series $72+63+54+\cdots$

(a) 7   (b) 9   (c) 12   (d) 15

2. Find the number of prime factors $4^{11} \times 7^5 \times 11^3$

(a) 30   (b) 34   (c) 28   (d) 20

3. Find the Value of : $\sqrt{\dfrac{(\sqrt{12}+\sqrt{8})(\sqrt{3}-\sqrt{2})}{5+\sqrt{24}}}$

(a) $\sqrt{3}-\sqrt{2}$ (b) $\sqrt{6}-2$ (c) $2-\sqrt{6}$ (d) $\sqrt{2}-\sqrt{3}$

4. A milkman has 75 Lit milk in One Cane and 45 lit in another. Find the minimum number of Container Which Can measure milk Whiout any mixing ?

(a) 10   (b) 15   (c) 12   (d) 8

5. Let the least number of six digits Which When divided by 4, 6, 10, 15 leaves in each Case Same remainder 2 be N. The Sum of the digits in N is.

(a) 3   (b) 5   (c) 4   (d) 6

6 The Value of $1-\dfrac{1}{20}+\dfrac{1}{20^2}-\dfrac{1}{20^3}+\left(-\cdots+\infty\right)$

(a) $\dfrac{20}{19}$ (b) $\dfrac{19}{20}$ (c) $\dfrac{21}{20}$ (d) $\dfrac{20}{21}$

7. Find the Value of $\left[\dfrac{1.2.4+2.4.8+3.6.12+\cdots+\alpha}{1.3.9+2.6.18+3.9.27+\cdots+\alpha}\right]^{\frac{1}{3}}$

(a) 1   (b) $\dfrac{4}{7}$ (c) $\dfrac{5}{3}$ (d) $\dfrac{2}{3}$

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8. If $x = \dfrac{\sqrt{3}+1}{\sqrt{3}-1}$; $y = \dfrac{\sqrt{3}-1}{\sqrt{3}+1}$; then the

Value of $\dfrac{x^2+y^2+5xy}{x^2+y^2-xy}$ = ?

(a) $\dfrac{19}{13}$ (b) $\dfrac{17}{15}$ (c) $\dfrac{11}{13}$ (d) $\dfrac{21}{19}$

9. A candidate secured 30% marks in the examination and failed by 6 marks. Another secured 40% marks and got 6 marks more than the minimum to pass. The maximum mark is

(a) 150 (b) 120 (c) 100 (d) 180

10. How much pure alchohol has to be added to 400ml of a solution containing 15% alchohol in the mixture of 32% ?

(a) 60 ml (b) 100 ml (c) 128 ml (d) 68 ml

11. The average Weight of three men A, B and C is 84 kg. D joins them and the average Weight becomes 80 kg. If E Whose Weight is 3 kg more than that of D; replace A. The average Weight of B, C, D and E becomes 79 kg. The Weight of A is

(a) 65 kg (b) 70 kg (c) 75 kg (d) 80 kg

12. The Cricketer Whose bowling average is 24.85 runs per Wicket takes 5 wickets for 52 runs and there by decrease his average by 0.85. The number of Wickets taken by him till the last match was

(a) 64   (b) 72   (c) 80   (d) 76

13. Which of the following is the biggest?

$\sqrt[3]{4}$; $\sqrt[6]{6}$; $\sqrt[8]{5}$; $\sqrt[12]{245}$

(a) $\sqrt[3]{4}$ (b) $\sqrt[4]{6}$ (c) $\sqrt[8]{15}$ (d) $\sqrt[12]{245}$

14. 378 Coins Consists of rupees; 50 paise and 25 paise coins Whose values are in the ratio of 13 : 11 : 7. The number of 50 paise coins Will be

(a) 132 (b) 128 (c) 136 (d) 133

15. A hemisphere and cone have equal base. If heights are also equals; the ratio of their curved surface Will be

(a) $1 : \sqrt{2}$ (b) $\sqrt{2} : 1$ (c) $1 : 2$ (d) $2 : 1$

16. Colour A costing ₹420/kg is mixed With another Colour B costing ₹360/kg. The mixture is sold at the rate of ₹440/kg. In order to earn the profit of 10%; the rate of Colour A and B in the mixture should be

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

17. The ratio of the age of a man and his wife is 4:3. After 4 years; this ratio will be 9:7. If at the time of marriage, the ratio was 5:3; then how many years ago they were married?

(a) 12 years   (b) 8 yrs   (c) 10 yrs   (d) 15 yrs

18. A king came to the throne at the age of 30 and ruled till death; which was of $\frac{5}{11}$th of his life. Find the number of years he ruled?

(a) 30 yrs   (b) 45 yrs   (c) 35 yrs   (d) 25 yrs

19 The amount of profit when an article is sold for ₹ 500 is double the loss if it is sold for ₹ 200. Find the CP of the article.

(a) ₹ 300   (b) ₹ 150   (c) ₹ 450   (d) ₹ 350

20. The speed of a boat in still water is 20 km/h. The time taken to row up a certain distance is thrice the time taken to row down the same distance. Find the speed of current.

(a) 8 km/hr   (b) 6 km/hr   (c) 10 km/hr   (d) 12 km/h

21. Two equal sums are lent at same time 4% and 3% S.I respectively. The 1st sum has withdrawn 2 yrs earlier than 2nd. If the total amount in each case is ₹ 620; find the sum?

(a) ₹ 500   (b) ₹ 700   (c) ₹ 1000   (d) ₹ 800

[9] MISCELLANEOUS QUESTIONS (5)

The LCM of two numbers is 45 times their HCF. One number is 125 and the sum of their HCF and LCM is 1150. Find the other number.

(a) 200   (b) 225   (c) 175   (d) 150

23. In a caravan, in addition to 50 hens there are 45 goats and 8 camels with some keepers. If the total number of feet be 224 more than the number of heads; find the number of keepers.

(a) 18   (b) 20   (c) 15   (d) 30

24. 8 taps are filled a water tank. Some of them are water taps to fill the tank and remaining are outlet taps used to empty the tank. Each water tap can fill the tank in 12 hours and each outlet tap can empty it in 36 hours. On opening all the taps; the tank is filled in 3 hours. Find the number of water taps:

(a) 4   (b) 5   (c) 3   (d) 6

25. A goods train leaves a station at a certain time and at a fixed speed. After 6 hours; an express train leaves the same station and moves in the same direction at a uniform speed of 90 km/hr. This catches up the goods train in 4 hrs. Find the speed of the goods train?

(a) 45 k/h   (b) 54 k/h   (c) 36 k/h   (d) 72 k/h