

Note:-

Dear Students, kindly revise the Term-II Syllabus as per the assignment given. (Use Thin note-book for it).

- 1) Revise and write laws of exponents 2) Simplify $\frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$ (Ans = 5^5)
 3) $(\frac{5}{3})^{-5} \times (\frac{5}{3})^{-11} = (\frac{5}{3})^{8x}$ Find 'x'? (Ans = -2) 4) $(\frac{2}{9})^3 \times (\frac{2}{9})^{-6} = (\frac{2}{9})^{2m-1}$ (Ans m = -1)
 5) Simplify $\left\{ \left(\frac{2}{3} \right)^2 \right\}^3 \times \left(\frac{1}{3} \right)^{-4} \times 3^{-1} \times 6^{-1}$ (Ans = $\frac{32}{81}$) 6) Revise & write Algebraic Identities
 7) $(2x-3y)^2 = \dots$ 8) If $x - \frac{1}{x} = 9$, find $x^2 + \frac{1}{x^2}$ (Ans 83) 9) If $x - \frac{1}{x} = 9$,
 find $x + \frac{1}{x}$ (Ans $\sqrt{85}$) 10) If $x+y=12$, $xy=14$, find x^2+y^2 (Ans 116) 11) $(x-7)(x+3) = \dots$

- 12) Factorize the following:- a) $15xy-6x+10y-4$ Ans $(3x+2)(5y-2)$ b) $80a^2-45b^2$
 Ans $\rightarrow 5(4a+3b)(4a-3b)$ c) $81x^4-121x^2$ Ans $x^2(9x-11)(9x+11)$ d) $4a^2-4a+1$
 Ans $\rightarrow (2a-1)(2a-1)$ e) $4x^2-4xy+y^2-9z^2$ Ans $(2x-y+3z)(2x-y-3z)$ f) $x^2+4x-21$
 Ans $(x+7)(x-3)$ g) $x^2+5x-36$ Ans $(x+9)(x-4)$ h) $6x^2+5x-6$ Ans $(2x+3)(3x-2)$

- 13) Divide the following using factorization:- a) $35a^2+32a-99$ by $7a-9$ Ans $(5a+11)$
 b) x^2-5x+6 by $x-3$ Ans $(x-2)$

14) Use method of direct or inverse variation for the following:-

- a) Reena types 540 words in $\frac{1}{2}$ hr. How many words would she type in 6 minutes? (Ans 108)
 b) A private taxi charges a fare of Rs 260 for a journey of 200 km. How much would it travel for ₹ 219.50? (Ans 215 km)
 c) 1000 soldiers in a fort had enough food for 20 days. But some soldiers were transferred to another fort and the food lasted for 25 days. How many soldiers were transferred? (Ans 200)
 d) 120 men had food provision for 200 days. After 5 days, 30 men died due to an epidemic. How long will the remaining food last? (Ans 260 days)

15) A shopkeeper allows a discount of 10% to his customers and still gains 20%. Find the marked price of an article which costs ₹ 450 to the shopkeeper (Ans ₹ 600)

16) List price of a pair of shoes is Rs 450. If Anit paid ₹ 45 as GST for it, find the rate of GST. (Ans $\rightarrow 10\%$)

17) Find the compound interest on Rs 1000 at the rate of 10% per annum for 18 months when interest is compounded half-yearly (Ans ₹ 157.63)

18) A new car costs ₹ 36000. Its price depreciates at the rate of 10% a year during first two years and at the rate of 20% a year thereafter. What will be the price of the car after 3 years? (Ans \rightarrow ₹ 2,33,280)

19) Find the volume of a cube whose edge is 5 m (Ans $\rightarrow 125 m^3$)

20) Find the cube roots of the following numbers: \rightarrow a) 389017 (Ans 73) b) 91125 (Ans 45)

21) Construct a quadrilateral ABCD, AB = 5.3 cm, AD = 2.9 cm, $\angle A = 70^\circ$, $\angle B = 95^\circ$, $\angle C = 85^\circ$.

22) Construct a kite ABCD, in which AB = 4 cm, BC = 4.9 cm and AC = 7.2 cm.

23) Construct a Rhombus, PQRS, where PQ = QR = RS = SP = ?? and Diagonal PR = 6 cm and QS = 5.7 cm.

Note: \rightarrow Learn tables upto 20, squares & cubes of 1st 30 numbers.

APSD