

[Total No. of Ques. -5]

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Seat No:
G H Raisoni College of Engineering and Management, Pune.
 (An Autonomous Institution affiliated to Savitribai Phule, Pune University)
FY B.TECH. (TERM/SEM I-)
ESE WINTER 2025 (2023 Pattern)
Indian Knowledge System (23UHSL1202)

[Max. Marks : 60]

[Time:-2.5-Hours]

Instructions to the candidates:

- 1) All questions compulsory.
- 2) Figures to the right indicate full marks.
- 3) Calculator is not allowed.
- 4) Assume suitable data, if necessary.

Q. No.	Sub Question	Marks	CO	BL
1	a) Perform addition with balancing method. <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> i) $\begin{array}{r} 36859 \\ +69874 \\ +96852 \\ +56358 \end{array}$ </div> <div style="text-align: center;"> ii) $\begin{array}{r} 647586 \\ + 888256 \\ + 635655 \\ + 368942 \end{array}$ </div> <div style="text-align: center;"> iii) $\begin{array}{r} 897685 \\ + 682147 \\ + 569459 \\ + 693587 \end{array}$ </div> </div>	[6]	CO1	L2
	b) Perform subtraction by vinculum method. <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> i) $\begin{array}{r} 932546 \\ - 571598 \end{array}$ </div> <div style="text-align: center;"> ii) $\begin{array}{r} 712869 \\ - 384676 \end{array}$ </div> <div style="text-align: center;"> iii) $\begin{array}{r} 642135 \\ - 452672 \end{array}$ </div> </div>	[6]	CO1	L2
	OR			
	c) Perform Rapid subtraction <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> i) $\begin{array}{r} 889696 \\ - 571698 \\ - 35981 \end{array}$ </div> <div style="text-align: center;"> ii) $\begin{array}{r} 712869 \\ - 384676 \\ - 235687 \end{array}$ </div> <div style="text-align: center;"> iii) $\begin{array}{r} 642875 \\ - 452689 \\ - 35625 \end{array}$ </div> </div>	[5]	CO2	L2
2	a) Perform multiplication with base method. (any 2) i) 9998*9989 ii) 789*810 iii) 2112*2014	[3]	CO2	L2
	b) Perform multiplication. i) 995698*11 ii) 87953*99999 iii) 6584*500	[4]	CO2	L2
	c) Perform division by 11. i) 83526/11 ii) 98378/11 iii) 51242/11 iv) 85639/11	[4]	CO3	L3
3	a) Find the Cube Root by Vedic Maths Method. i) 24389 ii) 238328 iii) 884736 iv) 531441	[4]	CO3	L3
	b) Find the Cube by Vedic Maths Method. i) 39 ii) 405 iii) 993 iv) 3011	[4]	CO3	L3
	c) Find the Square by Vedic Maths Method. i) 5123 ii) 4015 iii) 9998 iv) 425	[5]	CO4	L3
4	Solving the Equation by vedic math method. (any 2) i) $2x+3y=8$ ii) $3x+2y=12$ iii) $5x+2y=19$ $4x+5y=14$ $x+y=5$ $3x-y=7$	[2]	CO4	L3
	b) Solving the linear Equation by vedic math method. i) $5x+3=3x+11$ ii) $9x+5=3x+23$	[5]	CO4	L3
	c) Find the Pythagorean Value by Vedic Maths Method. i) a=12 ii) a=18 iii) a=32 iv) a=25 v) 13	[6]	CO4	L2
5	a) What is a contribution of Dr. Bharati Lila Krishna Tirthji in Vedic Maths.	[6]	CO4	L2
	b) What is a Vinculum No.Explain with Example.	[6]	CO4	L2
	OR			
	c) The role of Vedic Maths in Engineering field .Explain it.	[6]	CO4	L2

• BL – Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analyzing, 5 –Evaluating, 6 - Creating).