

G H Rasoni College of Engineering and Management, Pune.*(An Empowered Autonomous Institute affiliated to Savitribai Phule, Pune University, NAAC Accredited "A+" Grade)***FY B.TECH (CSE-AI, AI-ML, CS&DS) (TERM/SEM -II)****ESE SUMMER 2025 (2023 Pattern)****Indian Knowledge System. (23UHSL1202)****[Time: 2.30 Hours]****[Max. Marks 60]****Instructions to the candidates:**

- 1) All questions compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.
- 5) Other Instructions, if any. : Calculator not allowed.

Q. No.	Sub Question	Marks	CO	BL
1	a) Perform addition with balancing method.	[6]	CO1	L2

i)	ii)	iii)
958642	536987	142569
+588888	+4253147	+ 789563
+758969	+ 124589	+ 14256
+236958	+2589745	+ 785249

b) Perform subtraction with vinculum method

[6] CO1 L2

i)	ii)	iii)
8546873	887456	3698754
-6467582	-598348	-2899846

OR

c) Perform subtraction with base method.

[6] CO1 L2

i)	ii)	iii)
7956325	852369	9842563
- 4566362	- 78693	-7852369

2 a) Perform multiplication with base method.(solve any 2)

[5] CO2 L2

i) 987×975

ii) 2016×2125

iii) 1035×1087

b) Perform multiplication.

[3] CO2 L2

i)	75989×1111
ii)	78956×250
iii)	997×989
iv)	536541×500
v)	986×125
vi)	$3x-1 \times 4x+1$

c) Perform division.(any2)

[4] CO2 L2

i)	$29873/55$
ii)	$53196/62$
iii)	$7817651/126$

3

a) Find the cube root.

[4] CO2 L2

i)	4410944
✓ ii)	19683
✓ iii)	389017
iv)	5639752

b)

Find the cube

[4] CO2 L2

i)	205
ii)	77
iii)	94
iv)	52

c)

Find the square.

[4] CO2 L2

i)	5102
ii)	296
iii)	998
iv)	375

4

a)

Find the pythagorean value.

[4] CO3 L2

i)	25
ii)	36
iii)	14
iv)	19

b)

Solve the following system of equations by vedic method.

[4] CO3 L4

✓ i)	$5x-3y=18$ $2x+4y=54$
✓ ii)	$6x+2y=-2$ $4x-3y=29$

c)

Find the average.

[4] CO3 L3

i)	3658 to 4584(evenno.)
ii)	-7589 to -9637(odd no)
iii)	4589 to 4599(consecutive no)
iv)	97856 to -75688(even no)

d)

The role of Vedic Maths in engineering field, explain it.

[6] CO4 L3

e)

How to find out the square root by Vedic Maths method .give example.

[6] CO4 L3

OR

f)

What is a contribution of Dr.Bharati Lila Krishna Tirthji in Vedic Maths, ✓

[6] CO4 L3

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