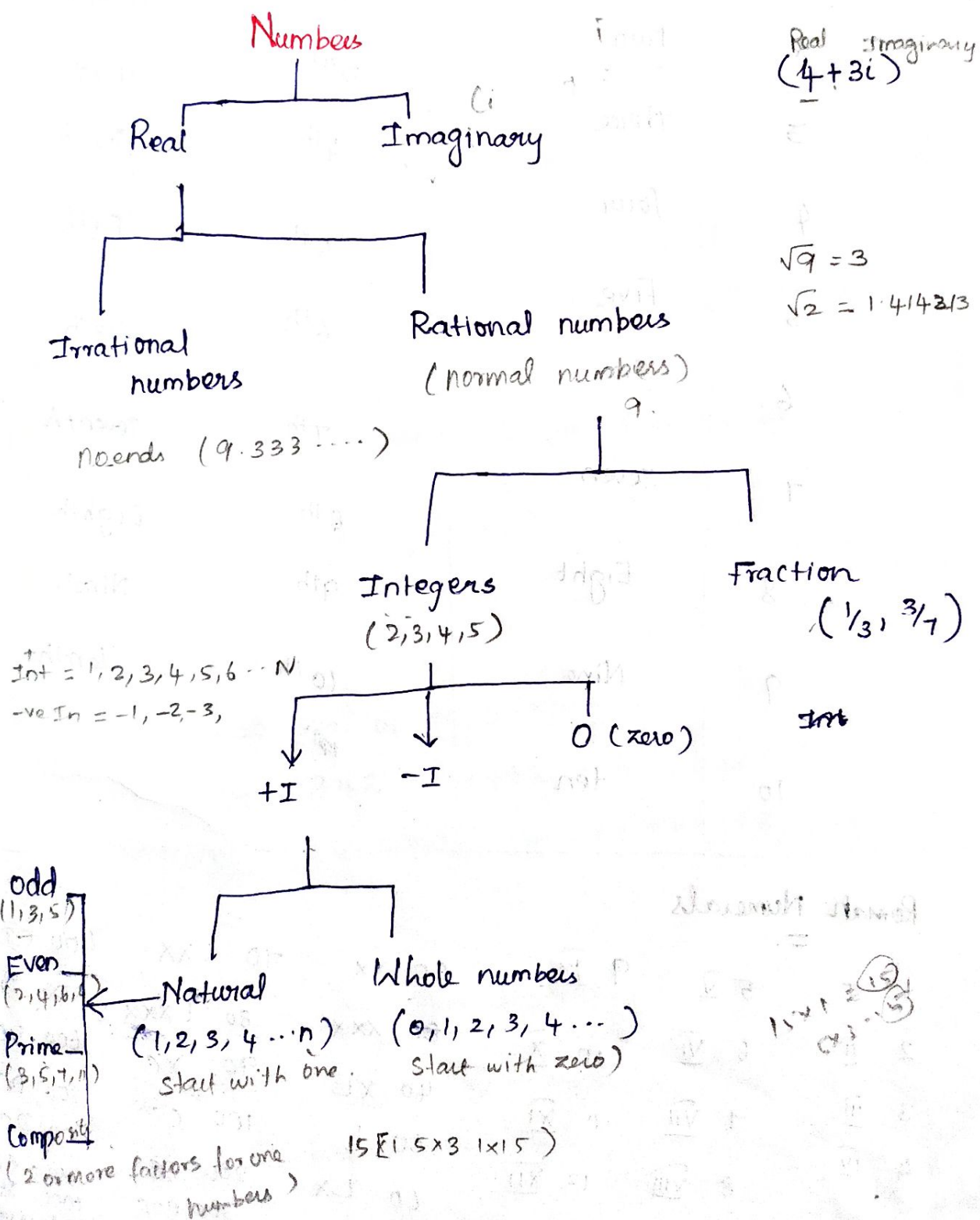


8/8/23

# UNIT - I Quantitative Ability I

## Number theory (Number system)

### Introduction



## Cardinal numbers

## Ordinal numbers

1

one

1<sup>st</sup>

First

2

Two

2<sup>nd</sup>

second

3

Three

3<sup>rd</sup>

third

4

four

4<sup>th</sup>

Fourth

5

Five

5<sup>th</sup>

Fifth

6

Six

6<sup>th</sup>

Sixth

7

seven

7<sup>th</sup>

Seventh

8

Eight

8<sup>th</sup>

Eighth

9

Nine

9<sup>th</sup>

Ninth

10

ten

10<sup>th</sup>

Tenth

## Roman Numerals

=.

1

I

5

V

9

IX

20

XX

70

LXX

400

CD

2

II

6

VI

10

X

30

XXX

80

LXXX

500

D

3

III

7

VII

11

XI

40

XL

90

XC

600

DC

4

IV

8

VIII

12

XII

50

L

100

C

700

DCC

60

LX

200

CC

800

DCC

300

CCC

900

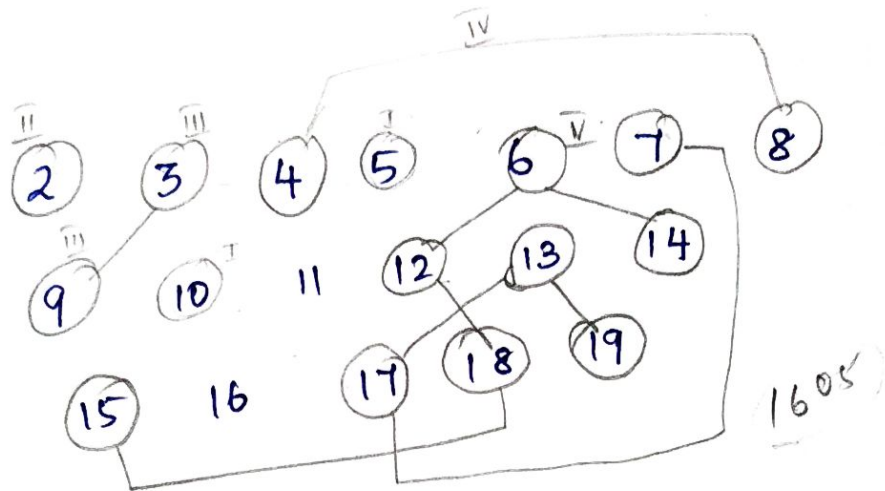
CM

1000

M

01/9/23 (X) for Quantitative aptitude.

## Number system - Divisibility Rule.



\* 5 - last number or digit 0/5

\* 10 - last number or digit 0

EX:  $\underline{1605}$  ( $\div$  by 5)  
 $\underline{1600}$  ( $\div$  by 10)

976545 ( $\div$  5) we can divide by.

976540 (10 (or) 5)

\* 2 - last digit 0 (or) Even number

EX:  $\underline{1658}$  ( $\div$  by 2)

$\underline{342} = 9$

$\underline{58960} = 824$

\* 3 and 9

$\Rightarrow$  sum of digits

EX:  $342 = 3+4+2 = 9$  ( $\div$  by 3)

$243243 = 2+4+3+2+4+3 = 18$  ( $\div$  by 9)

\* 4 and 8

$\Rightarrow$  Last two digits

4  $\Rightarrow$  EX:  $\underline{1624}$  (24)  $\div$  by 4

8  $\Rightarrow$  EX: Last three digits

\* 6  $\Rightarrow$   $\div$  by (2 & 3) i.e)  $\div$  by 6 2/3

EX: 126  $\Rightarrow$  126  $\div$  by 2

142+6 = 9  $\div$  by 3

\* 12  $\Rightarrow$  4/3

\* 14  $\Rightarrow$  7/2

\* 15  $\Rightarrow$  5/3

\* 18  $\Rightarrow$  9/2

Both

Prime numbers  
(7, 17, 13, 19)

\* 7  $\Rightarrow$  343

(Subtraction)

34(3<sup>x2</sup>) = 34 - 6 = 28

~~Is~~ last

$\Rightarrow$  Multiply last digit with (2)

$\Rightarrow$  Subtract the Ans. with first digits

$\Rightarrow$  then check the final <sup>ans.</sup> ~~soln~~ will  $\div$  by 7.

\* ~~18~~ (17)  $\Rightarrow$  1904

(Subtraction)

190(4<sup>x5</sup>) = 190 - 20 = 170

$\Rightarrow$  Multiply last digit with (5)  $\div$  by 17

\* 13  $\Rightarrow$  325

(Addition)

~~324~~ 32(5<sup>x4</sup>) = 32 + 20

= 52/13

\* 19  $\Rightarrow$  361

(Addition)

(361<sup>x2</sup>) = 36 + 2 = 38/19

$\Rightarrow$  173629 (last number)

\* 11  $\Rightarrow$  9174

(Sum odd place digit)

(-)

(sum Even place)

= 9 1 7 4 = (9+7) - (1+4)  
= 16 - 5 = 11 (11)