

PARSHVANATH CHARITABLE EBUST'S

A.P. SHAH INSTITUTE OF TECHNOLOGY

Department of Computer Science and Engineering
Data Science

Semester:
* Examples on sets of integers +
ex. (1) Find the no. of integers < 200 which are divisible by 2 or 5
$=\rangle$ $n(s) = no \cdot of integers = 200$
n(A) = no of integers divisible by 2 = 200 = 100
n(B) = no. of integers divisible by 5
n(AAB) = The no. of integer divisible by
2 and 5 200 = 20
. The no. of integers divisible by 2 or 5 or
n(AUB) = n(A) + n(B) - n(ADB)
= 100 + 40 - 20 = 120 S= 200
80 20 20

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Semester: Subject:DSGT Academic Year: 2022-20 23
ex. (2) Among the integers 1 to 300 how many
are divisible by 3 or 5 or 7 and are
THE DY 3 THOY BY E DOWN BY 7 HOW
we divisible his a hut not his 5
mor by 7?
and are have,
m(0) = The no. of integers in set = 300
n(u) = The no. of integers in set = 300 n(T) = no. of integers divisible by 3 = 300=1
D(F) = no of integers triviale 1
n(F) = no. of integers divisible by 5 = 300 = 60
n(s)= no. of integers divisible by 7 = 300 = 42
n(TNF)=300
3×5
$n(T \cap S) = 300 = 20$
2X7
n(fns) = 300 = 8
M(TOFOS) - 300
3×5×7 = 2
The no of integers divisible by 3 or by 5
or by 7.
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Semester :	Subject : DS GT	Academic Year: 20,2-2, 20,3-3
n(TUFUS)=	n(T) + n(F) + n(S) - (FAS) + n(TAFAS)	- n(TOF) - n(TOS)
100	+60+42-20-14-	
The no. of	integers not di	visible by 3
m (TUFUS)	= n(v) - n(TV	FUSJ
	= 300 - 162 = 138	
by 5, not	integers divisible	by 3 but not
= n	$n(T\cap FUS) = n$	
	00-20-14+2	AN INC.
1000 that ar	e is not divisible is not divisible	by 3 nor by
by 7 but	divisible by 3 9	3
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