

ALL BRANCH (Hinglish)



General Aptitude

Quantitative Aptitude

DPP 04 Discussion Notes
Counting Theory



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MCQ

How many words can be made from the word "SCARY" using all the alphabets with repetition and without repetition respectively?

A 3125; 120

B 1024; 60

C 1024; 240

D 240; 1024

$$\begin{array}{c} \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \\ 5 \times 5 \times 5 \times 5 \times 5 = 3125 \end{array}$$

$$\begin{array}{c} \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \\ 5 \times 4 \times 3 \times 2 \times 1 = 120 \end{array}$$

MCQ

How many 4-digit numbers can be formed from the digits 1, 2, 3, 4, 5, 6 and 7 which are divisible by 5 when none of the digits are repeated?

A 120

B 360

C 24

D 720

Th H T U
 $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{5}$
 $6 \times 5 \times 4 \times 1$

$= 30 \times 4 = 120$

MCQ



In how many ways can the alphabets of the word DERAIL be arranged so that the vowels come at the odd positions only and no letters are repeated?

A 12

B 18

C 36

D 24

Vowels

A, I, E

Consonant

D, R, L



$$3 \times 3 \times 2 \times 2 \times 1 \times 1$$

$$= 36$$

MCQ



How many words can be made from the letters of the word UNITED taking all the letters at a time considering no letter is to be repeated?

A 120

B 720

C 216

D 600

U U U U U U

$6 \times 5 \times 4 \times 3 \times 2 \times 1$

$= 720$

MCQ

How many 4-digit numbers can be formed using the digits (1, 3, 4, 5, 7, 9) when repetition of digits is not allowed?

A 300

B 320

C 340

D 360

$$\begin{array}{cccc}
 \text{Th} & & \text{H} & & \text{Tu} & & \text{U} \\
 \boxed{} & & \boxed{} & & \boxed{} & & \boxed{} \\
 6 & \times & 5 & \times & 4 & \times & 3 \\
 = & & & & & & 360
 \end{array}$$

MCQ

Find the number of new words that can be formed by rearranging the letters of the word 'ALIVE'?

- A 117
- B 118
- C 120**
- D 119

$$\begin{array}{c}
 \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \quad \boxed{} \\
 5 \times 4 \times 3 \times 2 \times 1 \\
 = 120
 \end{array}$$

MCQ

What is the number of possible words that can be made using the word "EASYQUIZ" such that the vowels always come together?

- A** 720
- B** 120
- C** 2880
- D** 4320

Vowels
E, A, U, I

Consonant
S, Y, Q, Z



$$= 24 \times 24 = 576 \times 5$$

$$= \underline{2880}$$

MCQ

How many numbers are there between 100 and 1000 in which all the digits are distinct?

- ☐ A 1000
- ☐ B 810
- ☐ C 729
- ☒ D 648

~~9~~ \times $\frac{(10-1)}{T_2}$ \times $\frac{(10-2)}{U}$

~~9~~ \times 9×8

$= 81 \times 8 = 648$



Thank You!

GW Soldiers