



Name of the Bundle	Intermediate Bundle V1	Subject	Aptitude
Topic	Number System - 2	Last updated on	14 August 2024

## CONCEPT 1 – NUMBER OF FACTORS

1. The number of factors of 4200 are \_\_\_\_.

- a. 64
- b. 56
- c. 46
- d. 48

**Ans: d. 48**

**Explanation:** If  $N = a^p \times b^q \times c^r$  then, total no. of factors =  $(p+1) \times (q+1) \times (r+1)$

$$\begin{aligned}4200 &= 2^3 \times 3^1 \times 5^2 \times 7^1 \\ &= (3+1) \times (1+1) \times (2+1) \times (1+1) \\ &= 4 \times 2 \times 3 \times 2 \\ &= 48\end{aligned}$$

So, the number of factors of 4200 is 48.

2. The number of factors of 72 are \_\_\_\_.

- a. 12
- b. 25
- c. 32
- d. 8

**Ans: a. 12**

3. The number of factors of 180 are \_\_\_\_.

- a. 15
- b. 18
- c. 20
- d. 9

**Ans: b. 18**



# Selvam College of Technology



An Autonomous Institution

Accredited by NAAC with "A" Grade, UGC Recognized 2(f) Status,  
An ISO 9001:2015 Certified Institution, Approved by AICTE New Delhi, Affiliated to Anna University-Chennai  
PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL-637003. TAMILNADU.  
Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

<b>Name of the Bundle</b>	Intermediate Bundle V1	<b>Subject</b>	Aptitude
<b>Topic</b>	Number System - 2	<b>Last updated on</b>	14 August 2024

4. How many factors of 40 are odd?

- a. 3
- b. 4
- c. 2
- d. 1

**Ans: c. 2**

**Explanation:** If  $N = a^p \times b^q \times c^r$  then, no. of odd factors = **Product of Power of odd numbers + 1**

$$\begin{aligned}40 &= 2^3 \times 5^1 \\ &= 1+1 \\ &= 2\end{aligned}$$

So, the number of odd factors of 40 is 2.

5. The number of odd factors of 270 are \_\_\_\_\_.

- a. 32
- b. 5
- c. 7
- d. 8

**Ans: d. 8**

6. How many factors of 40 are odd?

- a. 9
- b. 4
- c. 5
- d. 10

**Ans: c. 5**



# Selvam College of Technology



An Autonomous Institution

Accredited by NAAC with "A" Grade, UGC Recognized 2(f) Status,  
An ISO 9001:2015 Certified Institution, Approved by AICTE New Delhi, Affiliated to Anna University-Chennai  
PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL-637003. TAMILNADU.  
Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

<b>Name of the Bundle</b>	Intermediate Bundle V1	<b>Subject</b>	Aptitude
<b>Topic</b>	Number System - 2	<b>Last updated on</b>	14 August 2024

7. Find the number of even factors of 24.

- a. 6
- b. 12
- c. 24
- d. 1

**Ans: a.6**

**Explanation:** If  $N = a^p \times b^q \times c^r$  then, no. of even factors =  $px(q+1)x(r+1)$

$$24 = 2^3 \times 3$$

$$= 3 \times (1+1)$$

$$= 3 \times 2$$

$$= 6$$

So, the number of even factors of 24 is 6.

8. How many factors of  $2^7 \times 3^4 \times 5^3 \times 7$  are even?

- a. 280
- b. 320
- c. 84
- d. 40

**Ans: a.280**

9. The number of prime factors in 72 are \_\_\_\_.

- a. 12
- b. 5
- c. 9
- d. 2

**Ans: b. 5**

**Explanation:** No. of prime factors = **Sum of their power**

$$72 = 2^3 \times 3^2$$

$$= 3+2$$

$$= 5$$

So, the number of prime factors of 72 is 5.

**IT Support and Development Training Programme**

Creating Employable Engineers and Entrepreneurs



# Selvam College of Technology



An Autonomous Institution

Accredited by NAAC with "A" Grade, UGC Recognized 2(f) Status,  
An ISO 9001:2015 Certified Institution, Approved by AICTE New Delhi, Affiliated to Anna University-Chennai  
PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL-637003. TAMILNADU.  
Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

<b>Name of the Bundle</b>	Intermediate Bundle V1	<b>Subject</b>	Aptitude
<b>Topic</b>	Number System - 2	<b>Last updated on</b>	14 August 2024

10. How many prime numbers exist in the factorisation of  $2^3 \times 5^7 \times 21^4 \times 10^8$ ?

- a. 20
- b. 34
- c. 25
- d. 15

**Ans: b.34**

## CONCEPT 2 – NUMBER OF ZEROS

1. The number of zeros at the end of the product  $12 \times 13 \times 14 \dots \dots \dots 84$  is \_\_\_\_.

- a. 15
- b. 17
- c. 20
- d. 21

**Ans: b. 17**

2. Find the number of zeros at the end of the product " $5 \times 7 \times 9 \times 2 \times 11$ ".

- a. 2
- b. 3
- c. 4
- d. 1

**Ans: d. 1**

**Explanation:** Number of pair 2's and 5's = 1 Number of zero = 1