



# 21 Day Study Plan

## Day -15



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1. On 18 October 2010, who became the first Chairman of National Green Tribunal?

- A. Lokeshwar Singh Pant
- B. Swatanter Kumar
- C. Jaiprakash Joshi
- D. None of the above

Ans. A

Sol. On **18 October 2010**, Justice **Lokeshwar Singh Pant** became the first Chairman of **National Green Tribunal**. Currently it is chaired by Justice **AK Goel**.

• **Lokeshwar Singh Pant** is the **Lokayukta** of the state of **Himachal Pradesh**, was a judge of the **Supreme Court of India**.

2. IAC initially approached which of the following personality to be the figurehead for this campaign?

- A. Hema Malini
- B. Kiran Bedi
- C. Ramdev
- D. Anna Hazare

Ans. C

Sol. Initially, **IAC** approached **Ramdev**, a populist Indian yogi to be the figurehead for this campaign but his connections to the right-wing **Sangh Parivar** threatened to damage the credibility of what was perceived as an apolitical movement. This led to him being replaced by **Anna Hazare**, a veteran social reformer.

3. Who was the first woman Chief Justice of the Delhi High Court?

- A. Gita Mittal
- B. G. Rohini
- C. Swarupa Singhal
- D. None of the above

Ans. B

Sol. On **21 April 2014**, **G. Rohini** became the **first woman chief Justice** of the **Delhi high court**.

• Previously, she was the judge at Andhra Pradesh High Court.

• She retired as the Chief justice of Delhi High Court on **13.04.2017** on attaining superannuation.

• Justice **Gita Mittal** has been appointed as the **Acting Chief Justice** in her place.

4. Returning a bill for reconsideration is \_\_\_\_\_ veto.

- A. Absolute Veto
- B. Pocket Veto
- C. Suspensive Veto
- D. None of these

Ans. C

Sol.

• Returning a bill for reconsideration is known as "**Suspensive Veto**".

• **Absolute Veto** refers to the power of the President to withhold his approval to any bill passed by the Parliament. Once the bill is withheld, it ends and does not become an act. This veto is used in two cases.

• **Pocket Veto** is the power where the President neither ratifies nor rejects nor returns the bill, but simply keeps the bill pending for an indefinite period.

5. What is the minimum age required to be the President of India?

- A. 25
- B. 35
- C. 45
- D. 65

Ans. B

Sol.

• Article 52 provides the office of the President of India.

• Under Article 58, a person to be eligible for election as President should fulfill the following qualifications.

• He should be a citizen of India. He should have completed 35 years of age.

• He should be qualified for election as a member of the Lok Sabha.

• He should not hold any office of profit under the Union Government or any State Government or any local authority or any other public authority.

6. In **Gurudwara Bangla Sahib** the eighth Sikh Guru, Guru Har Krishan, cured which of the disease?

- A. Cholera
- B. Smallpox
- C. Chicken pox
- D. Both A & B

Ans. D

Sol. **Gurudwara Bangla Sahib** holds special significance for Sikhs because of its relation with the **eighth** Sikh Guru, **Guru Har Krishan** who stayed here to cure thousands suffering from **cholera** and **smallpox epidemic**.



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• The 'Sarover' or 'lake' inside the gurudwara is also worth a visit for its serenity and importance.

• In a recent survey, Gurudwara Bangla Sahib was ranked as the **best place of pilgrimage** in **Delhi**.

7. Which is the state bird of Rajasthan?

- A. Indian Roller      B. Great Hornbill
- C. House Sparrow    D. Indian Bustard

Ans. D

Sol.

**Indian Bustard** is the state animal of Rajasthan.

• It is also known as **Godawan**.

• It's biological name is **Ardeotis nigriceps**.

• In 2019 National Green Tribunal directed Central Govnt. to prepare time bound manner protection map for Godawan.

• It is recognised as **Critically Endangered** in IUCN Red List.

8. In which year the first Oscar awards ceremony was held?

- A. 1919                      B. 1929
- C. 1990                     D. 1996

Ans. B

Sol.

• The **first Oscar** awards ceremony was held in **1929**.

• This ceremony was held in The Hollywood Roosevelt, Los Angeles, California, United States.

• Bhanu Athaiya became the first Indian to win an Oscar Award in 1983.

9. Which of the following ranges is known as the Separator of North India and South India ?

- A. Vindhyas Range    B. Eastern Ghats
- C. Western Ghats     D. None of these

Ans. A

Sol. **The Vindhya Range** is known as the **Separator of North India and South India**.

• It is also known as Vindhyachal Range.

• This range acts as a water divide between Ganga system with the River system of South India.

• The Maikal range forms a connecting link between Vindhya and Satpura.

• Its average height is 700 meters to 1200 meters.

10. The upper part of the Mantle is called:-

- A. Mesosphere              B. Asthenosphere
- C. Both A and B            D. None of these

Ans. B

Sol. The upper part of the Mantle is called the **Asthenosphere** which is about 250 km.

• The Mantle is about **2900 km thickness**, composed of minerals in a semi-solid state.

• It is divided into further two layer **Upper Mantle** and **lower Mantle**.

• The lower Mantle is called as **Mesosphere**.

11. Who founded the newspaper 'National Herald'?

- A. A.O. Hume
- B. Madan Mohan Malviya
- C. J.L. Nehru
- D. Sachindranath Sanyal

Ans. C

Sol.

**'National Herald' newspaper was founded by Jawaharlal Nehru.**

• Jawaharlal Nehru founded national herald in **1938** as a tool to win independence.

• This newspaper is published by The Associated Journals Ltd. It was officially re-launched in June, 2017.

12. A and B started travelling towards each other at the same time, from places X to Y and Y to X, respectively.

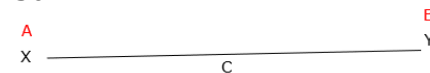
After crossing each other, A and B took 2.45 hours and 4.05 hours to reach Y and X, respectively. If the speed of B was 8.4 km/h,

then what was the speed (in km/h) of A?

- A. 10.8                      B. 11.7
- C. 12.6                     D. 9.9

Ans. A

Sol.



Let take a point C on line XY .

So A takes 2.45 hrs =  $t_1$  to travel from C to Y and

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B takes 4.05 hrs =  $t_2$  to travel from C to X

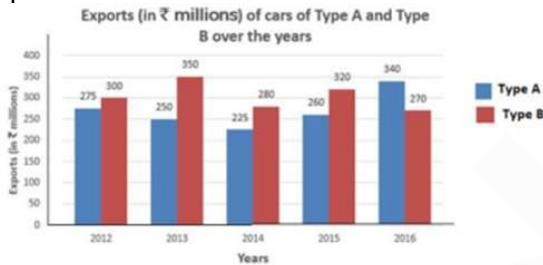
Let the speed of A be  $s_1$  and speed of B be  $s_2$

So distance  $\frac{s_1}{s_2} = \sqrt{\frac{t_2}{t_1}}$  and meeting time =  $\sqrt{t_1 t_2}$

$$\frac{s_1}{8.4} = \sqrt{\frac{4.05}{2.45}}$$

Hence  $s_1 = 8.4 \times \frac{9}{7} = 10.8$  km

13. Study the graph and answer the question.



The exports of type A cars in 2016 are what percentage less than the total exports of type B cars in 2014 and 2015?

- A.  $43\frac{1}{3}$
- B. 32
- C. 45
- D.  $26\frac{2}{3}$

Ans. A

Sol.

The exports of type A cars in 2016 = 340  
 The total exports of type B cars in 2014 and 2015 = 280 + 320 = 600

Percentage =  $\frac{600-340}{600} \times 100 = \frac{260}{600} \times 100 = 43\frac{1}{3}\%$

14. A can complete one-third of a work in 10 days and B can do  $\frac{3}{5}$  of the same work in 24 days. They worked together for 10 days. The remaining work was completed by C alone in 15 days. In how many days can C alone do  $\frac{2}{3}$  of the same work?

- A. 32
- B. 30

C. 24

Ans. C

Sol.

A =  $\frac{1}{3}$  work = 10 days  
 Whole work in 30 days

B =  $\frac{3}{5}$  work = 24 days  
 Whole work in = 40 days  
 LCM ( 30 , 40 ) = 120 unit

Efficiency of A =  $\frac{120}{30} = 4$  unit

Efficiency of B =  $\frac{120}{40} = 3$  unit

Together they can work = 4 + 3 = 7 unit  
 Total time they worked together = 10 days.

The remaining work was completed by C alone in 15 days.

Remaining work = 120 - 70 = 50 unit  
 So 50 units of work will be completed by C alone

1 days work =  $\frac{50}{15} = \frac{10}{3}$  units

$\Rightarrow$  1 unit =  $\frac{3}{10}$  days

So  $\frac{2}{3}$  of 120 work = 80 unit

80 units =  $80 \times \frac{3}{10} = 24$  days

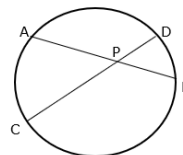
15. Two chords AB and CD of a circle intersect each other at P internally. If AP = 3.5 cm, PC = 5 cm, and DP = 7 cm, then what is the measure of PB?

- A. 12 cm
- B. 10.5 cm
- C. 10 cm
- D. 8 cm

Ans. C

Sol.

AP = 3.5 cm, PC = 5 cm, and DP = 7 cm



We know when chords intersect

$AP \times PB = DP \times PC$

$3.5 \times PB = 7 \times 5$

$PB = \frac{35}{3.5} = 10$  cm

16. The value of  $\tan^2 48^\circ - \operatorname{cosec}^2 42^\circ + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$  is :



- A. -2  
C. 0

- B. -1  
D. 1

Ans. B  
Sol.

$$\tan^2 48^\circ - \operatorname{cosec}^2 42^\circ + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$$

$$\tan^2 48^\circ - (1 + \cot^2 42^\circ) + \operatorname{cosec}(67^\circ + \theta) - \sec(23^\circ - \theta)$$

$$\begin{aligned} & \tan^2(90 - 48) - 1 - \cot^2 42^\circ + \operatorname{cosec}(90^\circ - 67^\circ - \theta) - \sec(23^\circ - \theta) \\ & \cot^2 42^\circ - 1 - \cot^2 42^\circ + \sec(23^\circ - \theta) - \sec(23^\circ - \theta) \\ & = -1 \end{aligned}$$

17. The internal length of a room is two times its breadth and three times its height. The total cost of painting its four walls at the rate of Rs. 25/m<sup>2</sup> is Rs. 3,600. What is the cost of laying a carpet on its floor at the rate of Rs. 90.50/m<sup>2</sup>?

- A. Rs. 5,970                      B. Rs. 5,430  
C. Rs. 6,516                      D. Rs. 7,240

Ans. C  
Sol.

A room is in the shape of cuboid . The total cost of painting its four walls at the rate of Rs.25/m<sup>2</sup> is Rs. 3,600

$$\text{Area Painted} = \frac{3600}{25} = 144 \text{ m}^2$$

Curved surface are of four walls = 2 (l+b)h

$$\text{So } 2(l + b)h = 144$$

Now l = 2b ; so b =  $\frac{l}{2}$  and h =  $\frac{l}{3}$

$$2\left(l + \frac{l}{2}\right)\left(\frac{l}{3}\right) = 144$$

$$2\left(\frac{3l^2}{6}\right) = 144$$

$$l = 12$$

$$b = 6 \text{ and } h = 4$$

$$\text{Area of floor} = l \times b = 12 \times 6 = 72 \text{ m}^2$$

$$\text{Cost of laying a carpet} = 90.50 \times 72 = \text{Rs } 6516$$

18. If 66.667% of 75% of one-eighth of a certain number is 179, then 33.33% of three-fourth of that number is :

- A. 537                                  B. 787.6  
C. 859.2                                D. 716

Ans. D  
Sol.

If  $66\frac{2}{3}\%$  of 75% of one-eighth of a certain number is 179

We know that

$$66\frac{2}{3}\% = \frac{2}{3} \text{ and } 75\% = \frac{3}{4}$$

Let that number be x

$$\text{So, } \frac{2}{3} \times \frac{3}{4} \times \frac{1}{8} \times x = 179$$

$$\Rightarrow x = 179 \times 16$$

Now , 33.33% of three-fourth of x =

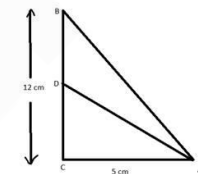
$$\frac{1}{3} \times \frac{3}{4} \times x = \frac{1}{4} \times 179 \times 16 = 716$$

19. In  $\Delta ABC$ ,  $\angle C = 90^\circ$  and D is a point on CB such that AD is the bisector of  $\angle A$ . If AC = 5 cm and BC = 12 cm, then what is the length of AD?

- A.  $\frac{10}{3}$  cm                                  B.  $\frac{5\sqrt{13}}{6}$  cm  
C.  $\frac{5\sqrt{13}}{3}$  cm                                D.  $\frac{20}{3}$  cm

Ans. C  
Sol.

Given that In  $\Delta ABC$ ,  $\angle C = 90^\circ$  and D is a point on CB such that AD is the bisector of  $\angle A$



In right angled  $\Delta ABC$

Using Pythagoras Theorem

$$\Rightarrow (AB)^2 = (AC)^2 + (BC)^2$$

$$\Rightarrow (AB)^2 = (5)^2 + (12)^2 = 169$$

$$\Rightarrow AB = \sqrt{169} = 13 \text{ cm}$$

Now using Angle bisector theorem , we can write

$$\frac{BD}{CD} = \frac{AB}{CA}$$

$$\Rightarrow \frac{BD}{CD} = \frac{13}{5}$$

$$\Rightarrow \frac{BD}{CD} = \frac{13}{5}$$

Hence BD:DC = 13:5 & BC = 12 cm

$$\Rightarrow DC = \frac{5}{18} \times 12 = \frac{10}{3} \text{ cm}$$

In right angled triangle ACD

Using Pythagoras Theorem

$$\Rightarrow (AD)^2 = (CD)^2 + (AC)^2$$



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$$\Rightarrow (AD)^2 = \left(\frac{10}{3}\right)^2 + (5)^2 = \frac{100}{9} + 25 = \frac{325}{9}$$

$$\Rightarrow AD = \sqrt{\frac{5 \times 5 \times 13}{3 \times 3}} = \frac{5\sqrt{13}}{3} \text{ cm}$$

20. Select the letter combination that is placed sequentially on the blank spaces of the letter series given below to complete the given series.

\_bbc\_acb\_c\_a\_bb

- A. cbabc                      B. abcab  
C. cabac                      D. acbbc

Ans. C

Sol.

The sequence of series is - cbb/caa.

The complete series is cbb/caa/cbb/caa/cbb.

Hence, option C is correct.

21. Which number will replace the question mark (?) In the following series.

196, 100, ?, 28, 16, 10

- A. 52                              B. 50  
C. 56                              D. 58

Ans. A

Sol.

**Pattern is :**

$$196 \xrightarrow{+2)+2} 100 \xrightarrow{+2)+2} \boxed{52} \xrightarrow{+2)+2} 28 \xrightarrow{+2)+2} 16 \xrightarrow{+2)+2} 10$$

Hence, option A is the correct response.

22. Choose the set of numbers that is similar to the following set.

(8, 28, 6)

- A. (17, 70, 13)                      B. (3, 20, 7)  
C. (12, 48, 14)                      D. (5, 26, 9)

Ans. B

Sol.

The middle number comes from the sum of first and last number multiplied by 2.

$$(8, 28, 6) = (8 + 6) \times 2 = 14 \times 2 = 28$$

$$\text{Similarly, } (3, 20, 7) = (3 + 7) \times 2 = 10 \times 2 = 20$$

Option (B) is the correct response.

23. Which of the two signs should be interchanged in the following equation to make the given value correct?

$$15 + 5 - 10 \times 6 \div 12 = 6$$

- A. + and -                              B. - and  $\div$   
C. + and  $\div$                               D. + and  $\times$

Ans. B

Sol.

According to the question,

If we interchange the - and  $\div$  sign the above equation become correct.

$$15 + 5 \div 10 \times 6 - 12 \text{ (Applying BODMAS)}$$

$$= 15 + 3 - 12$$

$$= 18 - 12$$

$$= 6$$

Hence, option (B) is correct.

24. in a code language. STROKE is written as FLPSUT How would BRIGHT be written in the same code language?

- A. UJHHCS                              B. SGFHQA  
C. CSJHIU                              D. UIHJSC

Ans. D

Sol.

In the code language, Each letter of the word replaced by its succeeding alphabet and then the formed word written in reverse order.

S	T	R	O	K	E	
+1	+1	+1	+1	+1	+1	
T	U	S	P	L	F	— FLPSUT (reverse order)

Similarly,

B	R	I	G	H	T	
+1	+1	+1	+1	+1	+1	
C	S	J	H	I	U	— UIHJSC (reverse order)

Hence, option (D) is correct.

25. Arrange the following words in a logical and meaningful order.

- 1) Probation
- 2) Promotion
- 3) Job
- 4) Interview
- 5) Confirmation

- A. 4, 3, 1, 5, 2                              B. 5, 4, 2, 1, 3  
C. 5, 1, 4, 2, 3                              D. 4, 1, 2, 5, 3

Ans. A

Sol.

First we give the interview, and then we get the job. Therefore, the logical order is -

4. Interview
3. Job
1. Probation
5. Confirmation
2. Promotion

Thus, the correct sequence is (4, 3, 1, 5, 2)

Hence, option (A) is correct.



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26. Three of the four numbers are alike in a certain way and one is different. Pick the odd number out.

- A. 325
- B. 416
- C. 143
- D. 544

Ans. D

Sol.

Except 544, all the three are divisible by 13.

Hence, option (D) is correct.

27. The following sentence is divided into four parts (P, Q, R and S). Rearrange it in the proper sequence in order to make a meaningful sentence.

- (P) Canals are waterways
  - (Q) That are built by people
  - (R) Travel, and irrigation
  - (S) And used for shipping,
- A. SQPR
  - B. RPSQ
  - C. PQSR
  - D. RPQS

Ans. C

Sol.

The sentence should begin with the segment P as it introduces the subject of the sentence i.e. 'canals'. Out of the given options, only option C contains P as the starting segment, thereby, making it the correct answer.

28. Complete the sentence with the most appropriate word.

A man is certain to be prosperous.

- A. Diligent
- B. Inactive
- C. Indolent
- D. Lethargic

Ans. A

Sol.

The blank needs an adjective that means 'hard-working'. 'Diligent' meaning 'having or showing care and conscientiousness in one's work or duties' is the apt fit for the blank.

Hence, option A is the correct answer.

29. Complete the sentence with the most appropriate word.

Students are not expected to leave without \_\_\_\_\_.

- A. Tolerance
- B. Indulgence
- C. Permission
- D. Freedom

Ans. C

Sol.

The students are not allowed to leave without authorization. 'Permission' meaning 'the action of officially allowing someone to do a particular thing; consent or authorization' is the apt fit for the blank.

Hence, option C is the correct answer.

30. Complete the sentence with the most appropriate word.

Laxmi's sons are the most thing in her life.

- A. Importancy
- B. Importance
- C. Importantly
- D. Important

Ans. D

Sol.

The blank needs an adjective. Out of the given options, 'important' meaning 'of great significance or value' is the apt fit for the blank.

Hence, option D is the correct answer.

31. Find the word closest in the meaning to "Pensive".

- A. Ignorant
- B. Negligent
- C. Thoughtful
- D. Shallow

Ans. C

Sol.

The meanings of the words are:

Pensive: engaged in, involving, or reflecting deep or serious thought.

Ignorant: lacking knowledge or awareness in general; uneducated or unsophisticated.

Negligent: failing to take proper care over something.

Thoughtful: absorbed in or involving thought.

Shallow: of little depth.

Hence, option C is the correct answer.

32. **Select the INCORRECTLY spelt word.**

- A. jumble
- B. jovial
- C. journy
- D. junior

Ans. C

Sol.

The incorrect spelling is "journy". The correct word should be "journey". So, C is the right answer.

33. **Select the most appropriate option to substitute the underlined**



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**segment in the given sentence. If there is no need to substitute it, select 'No substitution'.**

I enjoy to watch a good detective movie.

- A. watch                      B. watched  
C. No substitution        D. watching

Ans. D

Sol.

We use the "-ing" form after enjoy and not a "to-infinitive". Therefore "to watch" should be replaced by "watching". D is therefore the correct answer.

**34. Select the most appropriate meaning of the underlined idiom in the given sentence.**

Trying to find my lost ring in the college is like looking for a needle in a haystack.

- A. Doing something impossible  
B. Making a big deal of a small thing  
C. Doing something secretly

D. Doing something unimportant

Ans. A

Sol.

The phrase "something is like looking for a needle in a haystack" means "something is extremely difficult to find" which is similar to "doing something impossible". Hence option A is correct.

**35. Select the most appropriate meaning of the idiom underlined in the sentence.**

When Rahul asked Renu about her job she inflated a cow.

- A. to lie about it            B. to brag about it  
C. to conceal it             D. to make fun of it

Ans. B

Sol.

To inflate a cow means a way of saying they're bragging or talking something up to be bigger than it actually is. Hence option B is the correct answer.



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