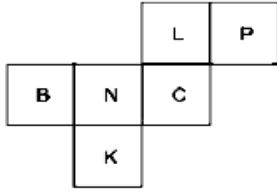


# Lockdown 2.0 | Study Plan Day 16



1. निम्नलिखित विकल्पों में से कौन सी उत्तर आकृति प्रश्न में दी गई आकृति को मोड़कर बनाई जा सकती है?



- A.
- B.
- C.
- D.

Ans. A

Sol.

इसे पासे में मोड़ने पर, हमें प्राप्त होगा:

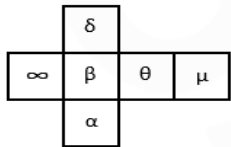
'B' के सामने 'C' है।

'L' के सामने 'K' है।

'P' के सामने 'N' है।

अतः विकल्प A सही उत्तर है।

2. उत्तर आकृति में निम्न में से कौन सा घन प्रश्न आकृति में खुले हुए घन के आधार पर नहीं बनाया जा सकता है?



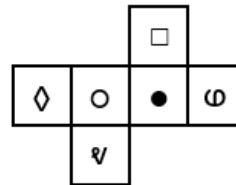
- A.
- B.
- C.
- D.

Ans. D

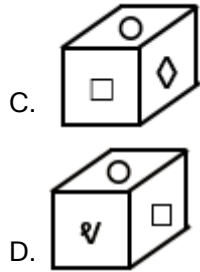
Sol. Here in the questions the  $\infty$  will be opposite to  $\theta$ . So they cannot be adjacent to each other.

Hence, option D cannot be formed.

3. प्रश्न आकृति में खुले हुए घन के आधार पर उत्तर आकृति में निम्न में से कौन सा घन नहीं बनाया जा सकता है?



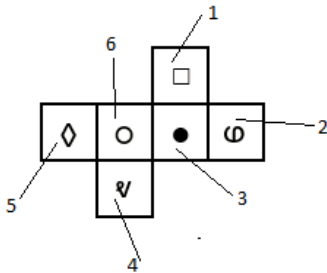
- A.
- B.



Ans. D

Sol. From the above diagram,

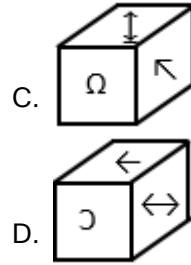
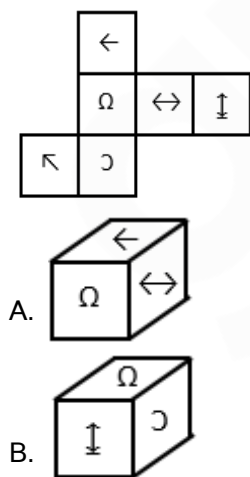
- 1 is opposite to 4
- 6 is opposite to 2
- 5 is opposite to 3



In option 4 face is adjacent to 1, which cannot be possible.

Hence, option D is the correct response.

4. उत्तर आकृति में निम्न में से कौन सा घन प्रश्न आकृति में खुले हुए घन के आधार पर बनाया जा सकता है?



Ans. A

Sol.

From the given figure we can say that, Faces with symbol  $\leftarrow$  and  $\odot$  will be on opposite faces,

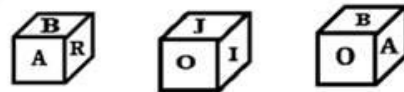
Faces with symbol  $\Omega$  and  $\updownarrow$  will be on opposite faces,

Faces with symbol  $\leftrightarrow$  and  $\nwarrow$  will be on opposite faces,

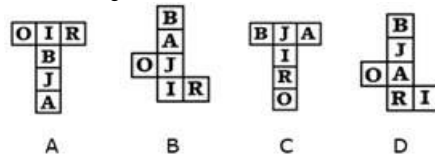
Thus cube at option A can be formed by folding the given figure.

5. निम्नलिखित आकृति को खोलने पर निम्न में से कौन सी आकृति बनाई जा सकती है?

प्रश्न आकृति:



उत्तर आकृति:



- A. A
- B. B
- C. C
- D. D

Ans. B

Sol.

अक्षर B, A के निकटतम हैं इसलिए आकृति A ,C और D संभव नहीं हैं।

आकृति B में, B, J के विपरीत है।

A, I के विपरीत है।

O, R के विपरीत है।

इसके अलावा, प्रश्न आकृति में विपरीत फलक किसी भी पासे में निकटतम स्थान पर नहीं हैं।



6. निचे एक घन की तीन अवस्थाएँ दर्शायी गई है। अक्षर 'N' के विपरीत फलक पर कौन स अक्षर आयेगा?



A. P

B. Q

C. S

D. R

Ans. D

Sol.

P is adjacent to N, Q, R and Z. Hence P is opposite to S

N is adjacent to Z and S. Hence, N will be opposite to R

Q opposite Z.

Now, the opposite faces are as follows:

N is opposite to R,

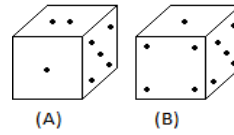
Q is opposite to Z,

P is opposite to S.

Thus, option D is the right choice.

7. एक पासे की दो स्थितियां A और B नीचे दी गई हैं।

4 अंक वाले फलक के विपरीत कौन से अंक वाला फलक आएगा?



A. 2

B. 3

C. 5

D. 6

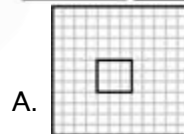
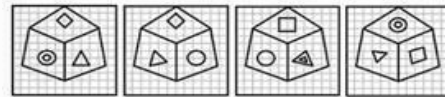
Ans. A

Sol.

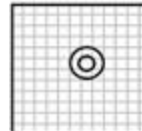
इन दो पदों में 5 बिंदु वाले आम मुखों में से एक, समान स्थिति में है। यदि एक पासे की दो अलग-अलग स्थितियों को दिखाया जाता है और दो आम मुखों में से एक, एक ही स्थिति में होता है तो शेष हिस्से एक-दूसरे के विपरीत होंगे। इसलिए, आवश्यक मुख पर 2 अंक दिखाई देगा।

इसलिए, विकल्प (A) सही है।

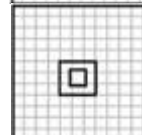
8. वृत्त O के फलक के विपरीत फलक पर कौन-सा प्रतीक दिखाई देगा ?



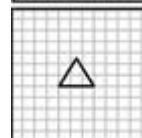
A.



B.



C.

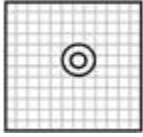


D.

Ans. B

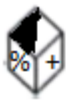
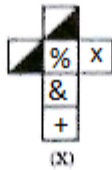
Sol. After observing the figures it is clear that answer figure B will appear on the face

opposite to the face of a circle O in the cube given.

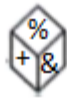


Hence, B is correct.

9. Figure X को मोड़ने पर बनने वाला विकल्प चुनिए?



(A)



(B)



(C)



(D)

- A. सिर्फ D
- B. सिर्फ C एवं D
- C. सिर्फ A एवं B
- D. सिर्फ B एवं C

Ans. A

Sol. From the given diagram, half shaded triangle will be opposite to x. another half shaded triangle will be opposite to &.

% will be opposite to +.

From this rule cube D can form.

Hence, option A is the correct response.

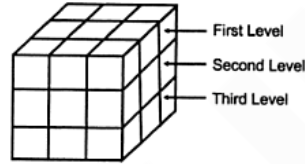
10. प्रत्येक एक इंच किनारे वाली लकड़ी के छोटे घनों को एक ठोस तीन इंच किनारे वाला घन बनाने के लिए एक साथ रखा गया। इस बड़े घन को बाहर सब ओर से लाल रंगा गया। जब बड़े घन को मूल छोटे घनों

में खंडित किया गया तो कितने घनों के दो फलक रंगे होंगे?

- A. 4
- B. 8
- C. 12
- D. 0

Ans. C

Sol.



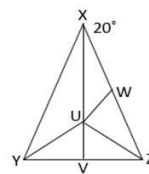
Thus 12 cubes will have paint on 2 sides  
Hence Option C is correct

11. एक  $\Delta XYZ$  में,  $XY = XZ$  और  $\angle YXZ = 20^\circ$  है। W, भुजा XZ पर एक बिंदु है और  $YZ = XW$  है, तो  $\angle WYZ$  का मान ज्ञात कीजिये?

- A.  $10^\circ$
- B.  $60^\circ$
- C.  $70^\circ$
- D.  $75^\circ$

Ans. C

Sol.



Let V be mid-point of YZ, so  $YV = VZ$ , and U be a point on XV, such that  $\Delta UYZ$  is an equilateral triangle.

So  $\angle WXY = \angle XYU = 20^\circ$

and  $XW = YU$  ( $XW = YZ$  (Given) and  $YZ = YU$  (from  $\Delta YUZ$ ))

Hence trapezoid XYUW is isosceles triangle.



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And  $WU \parallel XY$

so  $\angle WXU = \angle XYU = 10^\circ$  (half of  $\angle YXZ$ )

Now, the required,

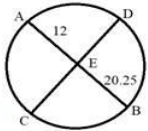
$$\angle WYZ = \angle UYZ + \angle WYU = 60^\circ + 10^\circ = 70^\circ$$

12. एक वृत्त की जीवा AB और CD बिंदु E पर प्रतिच्छेदित करती हैं। यदि  $AE = 12$  सेमी,  $BE = 20.5$  सेमी और  $CE = 3DE$  है, तो CE की माप निम्न में से क्या होगी?

- A. 27
- B. 25.5
- C. 18
- D. 28.5

Ans. A

Sol.



$$AE \times BE = CE \times DE$$

$$12 \times 20.25 = CE \times CE/3$$

$$36 \times 20.25 = CE^2$$

$$CE^2 = 729$$

$$CE = 27 \text{ है।}$$

13.  $2x + 3y = -6$  रेखा के लिए अभिलम्ब और Y-प्रतिच्छेद 3 होने वाली रेखा के समीकरण का क्या है?

- A.  $3x - 2y = 6$
- B.  $3x - 2y = -6$
- C.  $2x - 3y = -6$
- D.  $2x - 3y = 6$

Ans. B

Sol. Eq. of the line perpendicular to  $2x + 3y = -6$  is  $3x - 2y = k$

Given: y-intercept = 3, i.e. it passes from (0, 3)

Putting this point in the equation, we get

$$k = 3 \times 0 - 2 \times 3 = -6$$

Thus, the required line is  $3x - 2y = -6$

14. एक नियमित बहुभुज के आंतरिक कोणों का योग  $1260^\circ$  है। इस बहुभुज के बाह्य और अन्तः कोण के बीच का अंतर कितना है?

- A.  $100^\circ$
- B.  $90^\circ$
- C.  $120^\circ$
- D.  $105^\circ$

Ans. A

Sol.

Sum of interior angles of a regular polygon,

$$\Rightarrow (n - 2) \times 180 = 1260^\circ$$

$$\Rightarrow n = 9$$

Sum of each interior angle of a regular

$$\text{polygon} = \frac{1260}{9} = 140^\circ$$

Sum of interior and exterior angle =  $180^\circ$

$$140^\circ + \text{exterior angle} = 180^\circ$$

$$\text{Exterior angle} = 40^\circ$$

Difference between exterior and interior angle

$$= 140^\circ - 40^\circ = 100^\circ$$

15. चतुर्भुज ABCD एक वृत्त के चारों ओर बनाया जाता है। यदि  $AB = 8$  सेमी,  $BC = 7$  सेमी और  $CD = 6$  सेमी है, तो AD की लंबाई क्या होगी?

- A. 7 सेमी
- B. 7.5 सेमी
- C. 6 सेमी
- D. 6.8 सेमी

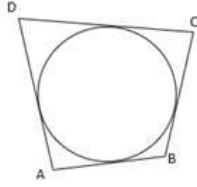
Ans. A

Sol.



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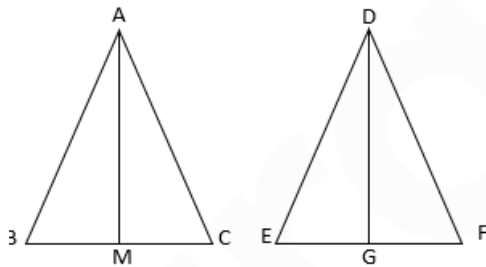
AB = 8 सेमी, BC = 7 सेमी और CD = 6 सेमी  
 हम जानते हैं कि, AB + CD = BC + AD  
 $8 + 6 = 7 + AD$   
 $\Rightarrow AD = 14 - 7 = 7$  सेमी

16.  $\Delta ABC$  और  $\Delta DEF$  समरूपयेपत्रिभुज हैं, जिनका क्षेत्रफल क्रमशः 81 वर्ग सेमी और 144 वर्ग सेमी है। AM और DG, भुजाओं BC और EF पर  $\Delta ABC$  और  $\Delta DEF$  की माध्यिकाएं हैं। यदि DG = 4 से.मी. तो AM = ?

- A. 2 से.मी.
- B. 9 से.मी.
- C. 4 से.मी.
- D. 3 से.मी.

Ans. D

Sol.



Ratio of the areas of similar triangles is equal to the ratio of the squares of their corresponding medians.

$$\frac{\text{Area of } \Delta ABC}{\text{Area of } \Delta DEF} = \frac{(AM)^2}{(DG)^2}$$

$$\frac{81}{144} = \frac{(AM)^2}{4^2}$$

$$\therefore (AM)^2 = \frac{81}{9} = 9$$

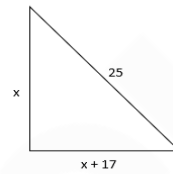
$$AM = 3\text{cm}$$

17. समकोण त्रिभुज के लंब और आधार के बीच का अंतर 17 सेमी है और इसका कर्ण 25 सेमी है। आधार और त्रिभुज की ऊँचाई का योग क्या है:

- A. 40 से.मी.
- B. 45 से.मी.
- C. 31 से.मी.
- D. 35 से.मी.

Ans. C

Sol.



हम पाइथागोरस प्रमेय का उपयोग करेंगे:

$$= (P)^2 + (B)^2 = (H)^2$$

$$= (x)^2 + (x + 17)^2 = (25)^2$$

$$= x = 7 \text{ cm}$$

$$\therefore \text{ऊँचाई} + \text{आधार} = 7 + 24 = 31 \text{ cm}$$

18. बिंदु P और Q त्रिभुज ABC की भुजा क्रमशः AB और AC पर इस तरह से स्थित हैं कि रेखाखण्ड PQ भुजा BC के समानांतर है | यदि AP और PB का अनुपात 2:5 है, और  $\Delta APQ$  का क्षेत्रफल 4 वर्ग से.मी. है, तो समलम्ब PQCB का क्षेत्रफल ज्ञात करें |

- A. 49 वर्ग से.मी.
- B. 45 वर्ग से.मी.
- C. 25 वर्ग से.मी.
- D. 21 वर्ग से.मी.

Ans. B

Sol.

हम जानते हैं कि,

$$\frac{\text{Area } \Delta ABC}{\text{Area } \Delta APQ} = \left(\frac{AB}{AP}\right)^2$$



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अतः,  $\Delta ABC$  का क्षेत्रफल =  $\Delta APQ$  का क्षेत्रफल  $\times$   
 $\left(\frac{AB}{AP}\right)^2$

$$= 4 \times 49/4$$

$$= 49 \text{ वर्ग से.मी.}$$

समलंब चतुर्भुज का क्षेत्रफल =  $\Delta ABC$  का क्षेत्रफल -  
 $\Delta APQ$  का क्षेत्रफल

$$= 49 - 4$$

$$= 45 \text{ वर्ग से.मी.}$$

19. यदि  $b=3$ ,  $c=4$  और  $\angle B = \pi/3$  है तो बनने वाले  
त्रिभुजों की संख्या ज्ञात कीजिये।

A. 5

B. अनंत

C. 0

D. अपर्याप्त डेटा

Ans. C

Sol.

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} \text{ (ज्या नियम)}$$

$$\therefore \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\therefore \frac{3}{\sin \pi/3} = \frac{4}{\sin C}$$

$$\therefore \sin C = \frac{2}{\sqrt{3}} = 1.15467 \text{ (लगभग)}$$

चूंकि  $\sin C > 1$

इसलिए कोई भी त्रिभुज नहीं बन सकता है।

20. निम्नलिखित में से कौन सा कथन सही है ?

A. दो समान त्रिभुज सदासर्वाङ्गसम होते हैं |

B. दो समान त्रिभुजों का क्षेत्रफल एक बराबर होता है

C. यदि दो त्रिभुजों की संगत भुजाएं अनुपातिक हो  
तो वे एक समान होंगे |

D. दो बहुभुज एक समान होंगे यदि उनकी भुजाएं  
अनुपातिक हों |

Ans. C

Sol.

यदि दो त्रिभुजों की संगत भुजाएं समानुपातिक हों, तो  
त्रिभुज समरूप हैं।

21. Select the correct passive form of the  
given sentence.

The farmer is ploughing the fields.

A. The fields are being ploughed by the  
farmer.

B. The fields are ploughed by the farmer.

C. The fields were ploughed by the farmer.

D. The fields have been ploughed by the  
farmer.

Ans. A

Sol.

The given sentence is in present continuous  
and the conversion into passive voice will be  
as follows:

Structure of active voice :

Subject + is/are + Ving + object

Structure of passive voice :

Object + is/are + being + verb(IIIrd form) +  
by + subject

Thus, after conversion the sentence will be  
:- The fields are being ploughed by the  
farmer.

Hence, option A is the correct answer.

22. Given below are four jumbled sentences.

Out of the given options pick the one that  
gives their correct order.

A) Much of this war had taken place along  
the Western Front.

B) Both sides had dug in deep and each lost  
many men over little ground.



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C) This front was a line of trenches across which the two sides faced each other.

D) Andre Maginot had fought a war with the French against the Germans.

A. DACB

B. DBCA

C. ACDB

D. BCDA

Ans. A

Sol.

Sentence D will be the first sentence as it introduces the war experience of Andre Maginot. Sentence A will follow sentence D as it tells the main spot of war. Sentence C will follow sentence A as it describes the characteristics of the Western Front. Sentence B will follow sentence C as it shows the consequences of war.

Hence, option A is the correct answer.

23. **Direction:** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Agra's marble-marvel has such an overwhelming presence (###Q1###) \_\_\_\_\_

other monuments in the town have been relegated (###Q2###) \_\_\_\_\_ oblivion.

Amongst such 60 odd monuments in (###Q3###) \_\_\_\_\_ town, the Red Taj is the

most (###Q4###) \_\_\_\_\_ and relatively well-preserved. The tomb in red sandstone was

(###Q5###) \_\_\_\_\_ by Ann Hessing, widow of a Dutch officer, after his death in 1803 .

Select the correct option to fill in blank 1.

A. that

B. but

C. than

D. If

Ans. C

Sol.

The given sentence is comparing Agra's marble-marvel (obviously Taj Mahal) with all other monuments. To make a comparison we use the word 'than'. Hence, option C is the correct answer.

24. Select the correct option to fill in blank 2.

A. with

B. to

C. on

D. by

Ans. B

Sol.

In the given blank, preposition 'to' will be the correct usage. Relegated to oblivion would mean that all other monuments in Agra have been sent to oblivion that means have been forgotten or disregarded as not important. Hence, option B is the correct answer.

25. **Direction:** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Agra's marble-marvel has such an overwhelming presence (###Q1###) \_\_\_\_\_

other monuments in the town have been relegated (###Q2###) \_\_\_\_\_ oblivion.

Amongst such 60 odd monuments in (###Q3###) \_\_\_\_\_ town, the Red Taj is the



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most (###Q4###) \_\_\_\_\_ and relatively well-preserved. The tomb in red sandstone was (###Q5###) \_\_\_\_\_ by Ann Hessing, widow of a Dutch officer, after his death in 1803 .

Select the correct option to fill in blank 3. A. the

B. a

C. an

D. their

Ans. A

Sol.

A specific monument 'The Red Taj' has been talked about in the sentence. We use article 'the' to specify some things. So, article 'the' will be used in the given blank. Hence, option A is the correct answer.

26. **Direction:** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Agra's marble-marvel has such an overwhelming presence (###Q1###) \_\_\_\_\_ other monuments in the town have been relegated (###Q2###) \_\_\_\_\_ oblivion.

Amongst such 60 odd monuments in (###Q3###) \_\_\_\_\_ town, the Red Taj is the most (###Q4###) \_\_\_\_\_ and relatively well-preserved. The tomb in red sandstone was (###Q5###) \_\_\_\_\_ by Ann Hessing, widow of a Dutch officer, after his death in 1803 .

Select the correct option to fill in blank 4. A. elegant

B. adequate

C. active

D. efficient

Ans. A

Sol.

Let's understand the meaning of the given words:

Elegant: displaying effortless beauty and simplicity in movement or execution

Adequate: having the requisite qualities or resources to meet a task

Active: tending to become more severe or wider in scope

Efficient: being effective without wasting time, effort or expense

Elegant is the most appropriate word in the given blank. Hence, option A is the correct answer.

27. **Direction:** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

Agra's marble-marvel has such an overwhelming presence (###Q1###) \_\_\_\_\_ other monuments in the town have been relegated (###Q2###) \_\_\_\_\_ oblivion.

Amongst such 60 odd monuments in (###Q3###) \_\_\_\_\_ town, the Red Taj is the most (###Q4###) \_\_\_\_\_ and relatively well-preserved. The tomb in red sandstone was (###Q5###) \_\_\_\_\_ by Ann Hessing, widow of a Dutch officer, after his death in 1803 .

Select the correct option to fill in blank 5.

A. building

B. to build

C. built

D. build

Ans. C



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Sol.

2<sup>nd</sup> form of verb should be used in the given blank. Built will be the correct word. Hence, option C is the correct answer.

28. **Direction:** Select the correct indirect form of the given sentence.

“Hello”, he said to his friend. “What can I do for you?”

A. He asked and greeted his friend that what he can do for him.

B. He greeted his friend and asked what he could do for him.

C. He told hello and asked his friend what he could do for him.

D. He said hello and asked his friend what can do for him.

Ans. B

Sol.

We use hello as a sign of hello. So, while converting to indirect speech hello will be converted to greeted. As the reported speech is in question form, said to will be converted to asked and as ‘what’ has been used, so no conjunction will be used because ‘what’ itself acts as a conjunction. Can will be converted to could. Imperative reported speech will be made in assertive form i.e. of subject + verb form. The 1<sup>st</sup> person pronoun will be changed according to the subject of the reporting speech i.e. I will be changed to he. The 2<sup>nd</sup> person pronoun will be changed according to the object of the reporting speech i.e. you will be changed to him. Hence, option B is the correct answer.

29. **Direction:** Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select No improvement.

Many of a students were not shortlisted for the personal interview.

A. No improvement

B. The many student

C. Many of the students

D. Many of students

Ans. C

Sol.

The underlined part must be replaced with option C. Article a/an are used before indefinite singular countable nouns. So, the use of a before students is wrong. Replace ‘a’ with ‘the’.

30. Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.

A) Upon returning from his travels, he was forced to live in a house where his large family lived.

B) Vaikom Muhammad Basheer was a Malayalam fiction writer from Vaikom in Kerala.

C) The household was always noisy and full of chaos, no place for a writer surely!

D) Apart from family members, myriads of domestic animals also treated the house as their own.

A. BCDA

B. BCAD

C. BDCA

D. BADC



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Ans. D

Sol.

Sentence B will be the first sentence as it introduces the subject of the sequence i.e. Vaikom as Malayalam writer. Sentence A will follow sentence B as it describes his living after travels. BA being a mandatory pair is available only in option D.

Hence, option D is the correct answer.



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