

CDS DAT Sample Paper

1. When the natural numbers 1,2,3.....500, the digit 3 is used n times in this way.The value of n is:

- (a)100
- (b)200
- (c)150
- (d)180

Ans: We know on counting that 1 to 100 has the digit 3 20 times. Similarly for 100 to 200 ,it is another 20,adds up to 40. Then from 200 to 300 ,another 20,makes it to 60 now. For 300 to 400,it is 120 making the total to be 180. Another 20 for 400 to 500 makes the sum to be 200. Hence the answer is 200.

2. How many natural numbers up to 990 are divisible by 5 and 9 both but not by 7?

- (a)18
- (b)20
- (c)19
- (d)50

Ans: For a number to be divisible by both 9 and 5 means it must be divisible by 45. So the total natural numbers divisible by 45=22 (45,90,135,.....,990). Now since the obtained numbers should not be divisible by 7 so the numbers of the form $45 \cdot 7l$ must be subtracted from these 22 numbers Thus the required number is $22-3=19$.

3. A boy draws n squares with sides 1,2,3,4,5 inches,the average area covered by these squares:

- (a) $n(n+1)/2$
- (b) $n(n+1)(n+2)/4$
- (c) $(n+1)/2(2n+1)/3$
- (d) n

Ans. Average area is the summation of individual areas divided by 5 i.e the no. of squares so the answer is $(n+1)/2(2n+1)/3$.

4. If $x=6$ and $y=3$ then $(x+y)^{x/y}$

- (a)34
- (b)19
- (c)18
- (d)81

Ans. $(x+y)=(6+3)=9$ and $x/y=6/3=2$ So 9^2 is 81.

5. A camel pursue an elephant and takes 5 leaps for every 7 leaps of elephant but 5 leaps of elephant are equal to 3 leaps of camel.What is the ratio of speed of camel to elephant.??

- (a) 1:2
- (b) 22:21
- (c) 25:21
- (d) 25:21

Ans. $5/3:7/5 = 5/3 \cdot 15:7/5 \cdot 15 = 25:21$

6. If 45 students can consume a stock of food in 2 months, find for how many days the same stock of food will last for 27 students.

- (a) 100
- (b) 120
- (c) 85
- (d) 110

Ans. A

student	days
45	60
1	60×45
27	$(60 \times 45) / 27 = 100$

So the ans is 100.

7. If 6 notebooks cost Rs 45, how much would 8 notebooks cost

- (a) 40
- (b) 24
- (c) 60
- (d) 100

Ans:

Notebook	cost
6	45
1	45×6
8	$45 \times 6 / 8 = 60$

So the ans is 60.

8. How many 6 digits telephone number can be formed with digits 0,1,2,3,4,5,6,7,8,9 if each number starts with 35 and no digits appears more than once.

- (a) 35
- (b) 45
- (c) 18
- (d) 20

Ans: As the first two digit is already occupied with 35 for next 4 digits we can choose from remaining 8 numbers in $8P_4$ ways, so the answer is 35.

9. 3 bells toll at interval 36 sec, 40 sec, 48 sec respectively. They start ringing together at a particular time. They next toll together at

- (a) 24 mins
- (b) 12 mins
- (c) 48 mins
- (d) 6 mins.

Ans. H.C.F of given intervals is 12 mins .

10. If $a=b^x$, $b=c^y$ and $c=a^z$, then xyz is

- (a) 1
- (b) 2
- (c) 0
- (d) 10

Ans. Applying log to the given equation will give $xyz=1$

11. Malika travelled $\frac{5}{16}$ th of her journey by coach, $\frac{7}{20}$ by rail, she walked the remaining 10 km, how far did she go altogether.

- (a) 8 km
- (b) 16 km
- (c) 14 km
- (d) 29

Ans: $\frac{5}{16}$ of $x + \frac{7}{20}$ of $x + 10 = x$
on solving we get $x = 29$ km.

12. If $x+y+z=0$, then the value of $\frac{x^2}{yz} + \frac{y^2}{zx} + \frac{z^2}{xy}$ is

- (a) 0
- (b) 1
- (c) 2
- (d) 3

Ans. 3

13. The largest sum of money which is contained in both 49.56 and 37.94 an exact number of times is:

- (a) 2.56
- (b) 3.54
- (c) 1.36
- (d) 2.00

Ans. H.C.F of given amount is 3.54

14. If $a^x = b^y = c^z$ and $\frac{b}{a} = \frac{c}{b}$ then $\frac{2z}{(x+y)}$ is equal to

- (a) $\frac{x}{2}$
- (b) $\frac{y}{2}$
- (c) $\frac{z}{2}$
- (d) 1

Ans. Applying log we have $\frac{x}{2}$

15. If $2^{(x+3)} \cdot 4^{(2x-5)} = 2^{(3x+7)}$ then the value of x

- (a) 4
- (b) 6
- (c) 7
- (d) 5

Ans. Applying log on both sides we have $(x+3)\log 2 + (2x-5)\log 4 = (3x+7)\log 2 = 7$

Directions(Q NO.16-20):In these questions,choose the alternative which the same meaning to the keyword.

16. Abase

- (a) Incur
- (b)Tax
- (c) estimate
- (d) humiliate

Ans.(d)

17. Aberration

- (a) Deviation
- (b) Abhorrence
- (c) Dislike
- (d) absence

Ans.(b)

18. Balmy

- (a) venturesome
- (b) dedicated
- (c) mild
- (d) fanatic

Ans: (c)

19. Buxom

- (a) voluminous
- (b) indecisive
- (c) convincing
- (d) plump

Ans. (d)

20. Callow

- (a) youthful
- (b) holy
- (c) mild
- (d) colored

Ans.(a)

PASSAGE-I

We possess an insidious subsidy culture. If an election is coming, a quick word will raise the LPG cylinder cap or lower CNG prices, ignoring gaping fiscal deficits. In the idealised public sector era, subsidies were a symbol of our commitment to bring about egalitarian growth, protecting or infant industries. Now, in the last decade, our central government has spent almost Rs 11 trillion on subsidies-mostly captured by the upper class on fuel and large farmers on fertilizers. Similar to Italy, our unmanageable spending problems are compounded by welfare expansion and a social expectation for subsidies. Everyday, choices from education to transport, are tailored by subsidies that the government gives. Populism runs amok, with warped socialist economics focusing on vote lined needs but not appropriate holistic solutions. A bitter fiscal reckoning awaits.

21. According to the paragraph, our government frequently provides subsidies to

- (a) improve economic conditions of the country
- (b) gain more popularity
- (c) provide increased facilities to people
- (d) improve our exports and reduce imports

Ans- b

22. As per the paragraph, subsidies should be given to

- (a) provide equal rights
- (b) discourage black market
- (c) encourage industrialization
- (d) None of the above

Ans- d

23. With a view to improving economic situation of our country, we

- (a) should continue to provide subsidies
- (b) must take some strict measures
- (c) should give more subsidies to the needy and poor
- (d) must not pay any attention to subsidies

Ans- b

24. Which of the following statements is not true?

- (a) Government provides subsidies as a part of vote-ban politics
- (b) In Italy, government spends much more money than it should
- (c) During the last few years, government has not spent much on subsidies
- (d) All of the above

Ans- c

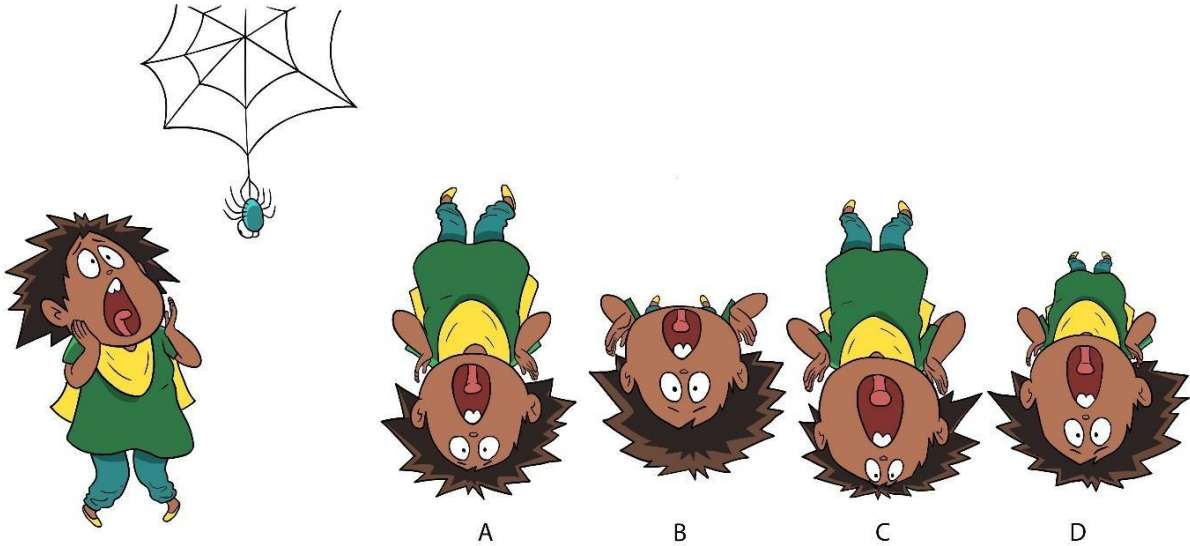
25. A can do a work in 20 days, and B can do in 10 days. A starts the work and works alone for 5 days. Then, B joins A and they finish the work. In how many days the work gets finished?

- (a) 10
- (b) 12
- (c) 9

(d) 8

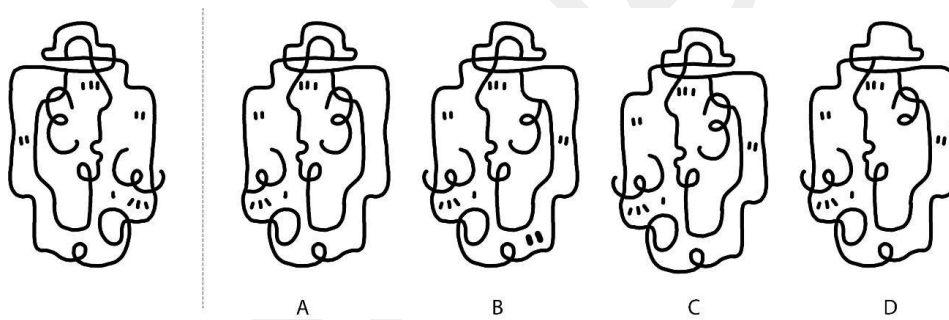
Ans- a

26. A story depicts Sabina encountering a spider. The continuing scene has to represent the spider's point of view of Sabina. What is the most appropriate option?



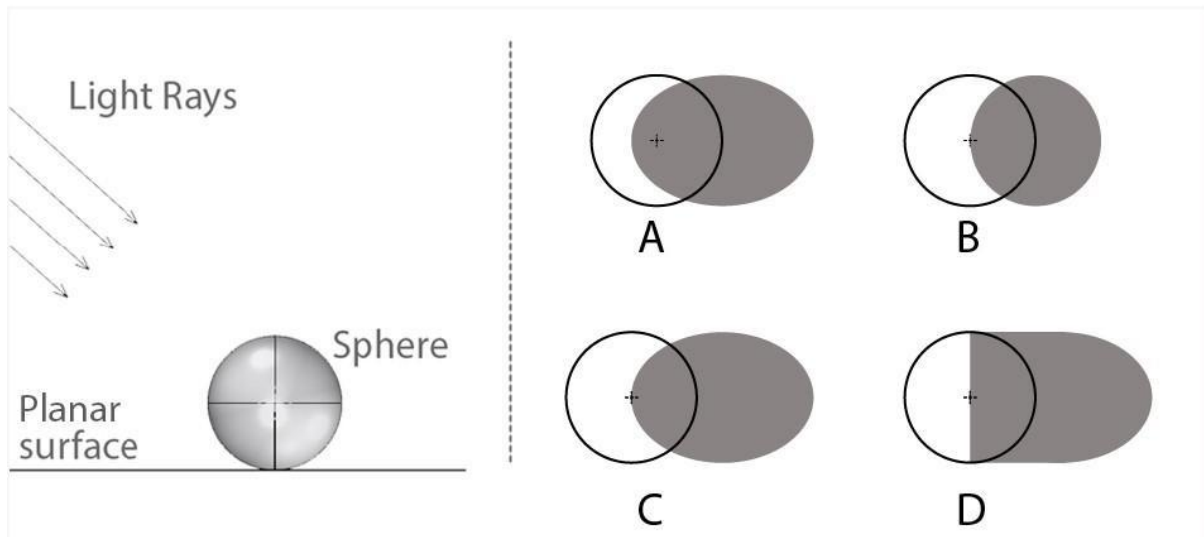
Ans- D

27. Which option is the correct mirror image of the figure given on the left?



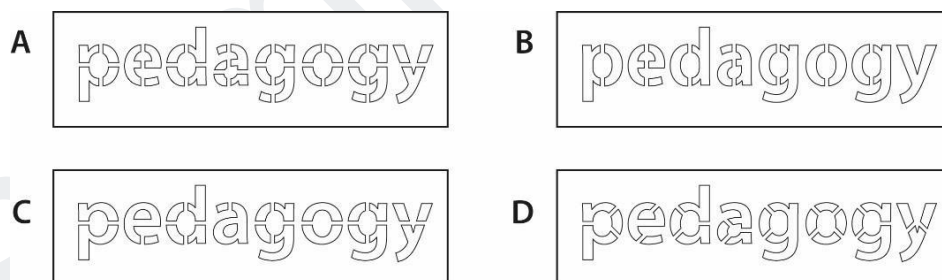
Ans- B

28. A solid sphere is kept on a planar surface. Parallel rays of light are falling on it as shown in the image. Which option correctly represents the shadow cast by the sphere on the planar surface?



Ans- A

29. Four students were given a task to design a stencil for the word 'pedagogy' for spray painting. Shown in the options are designs of each student that are to be cut into stencils for painting. Identify the design that will NOT work as a stencil to paint the given word?

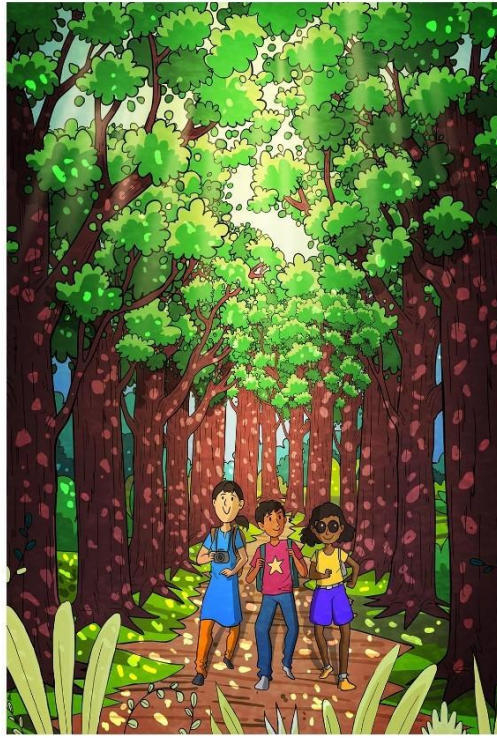


Ans- C

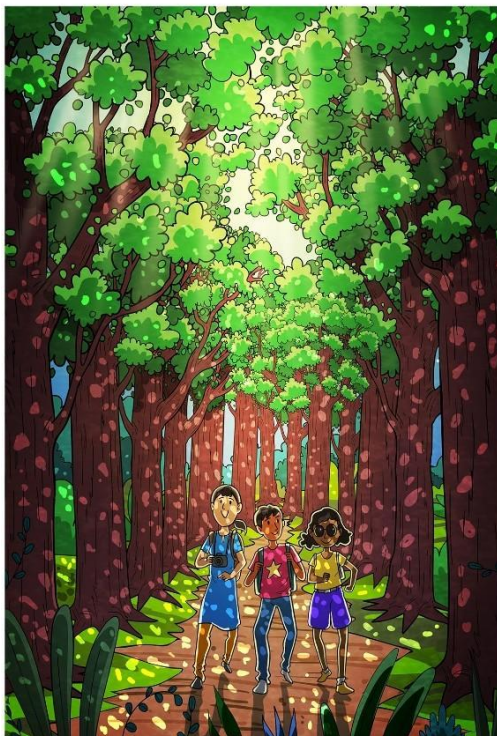
30. A group of friends are on a trek. The sunlight is directly above them. No other light source is present. Identify the most appropriate lighting for this scene.



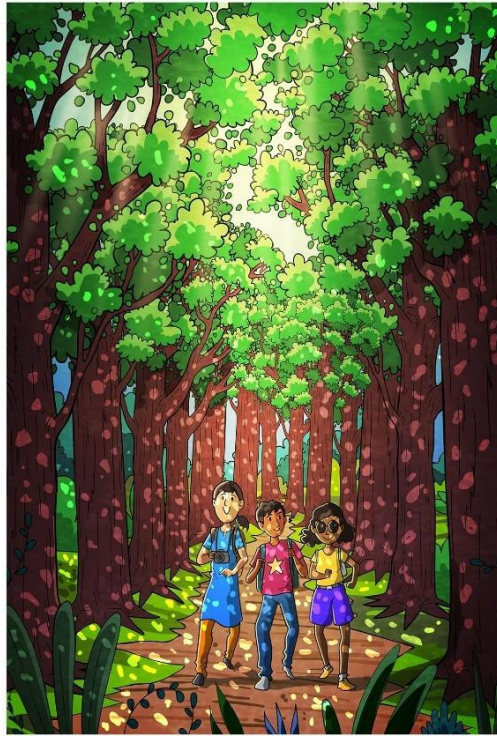
A



B



C



D

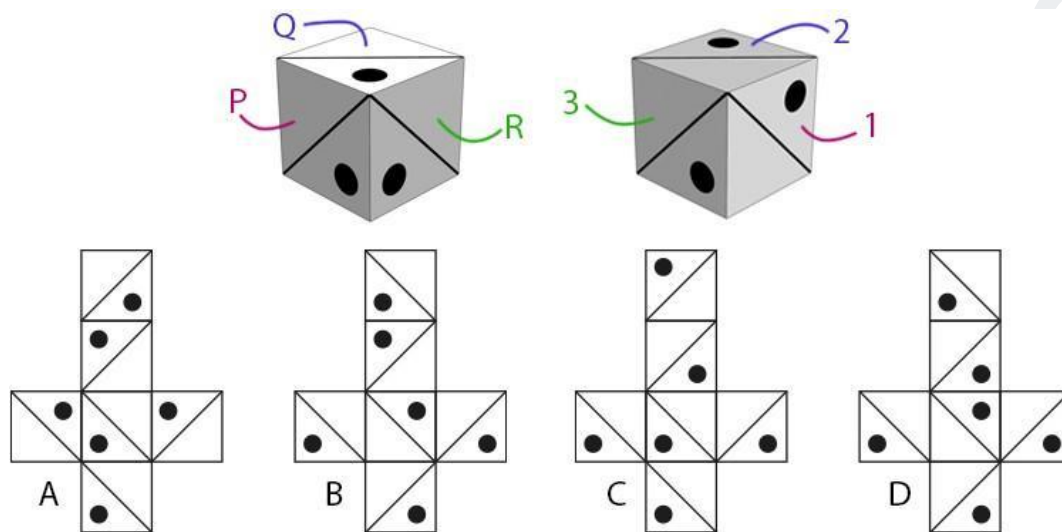
Ans- A

31. Identify the odd one.



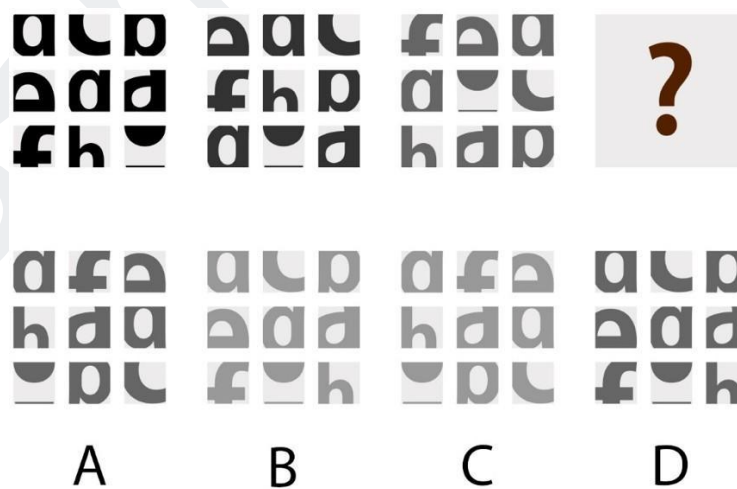
Ans- D

32. Shown below are the 2 views of a cube. If face P is opposite to 1, Q is opposite to 2 and R is opposite to 3, which option can be folded to make the cube?



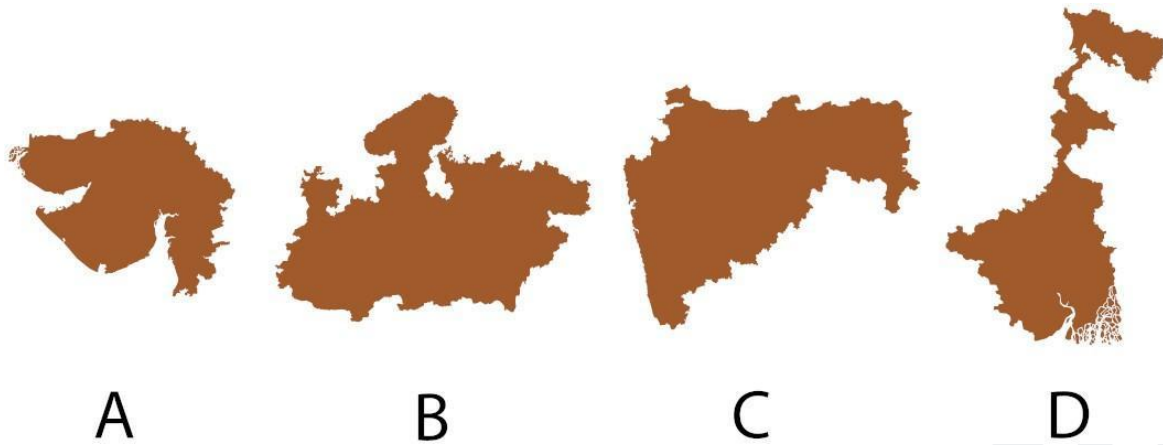
Ans- C

33.



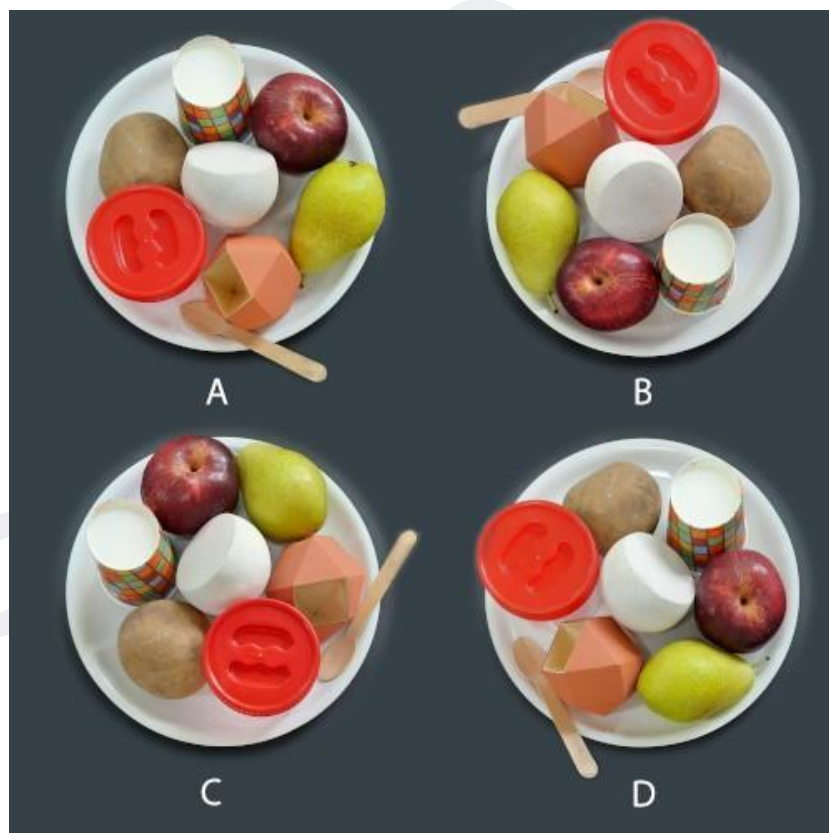
Ans- C

34. The options show maps of some states of India. In only one of the options, the map has been scaled (either up or down). Which is that option?



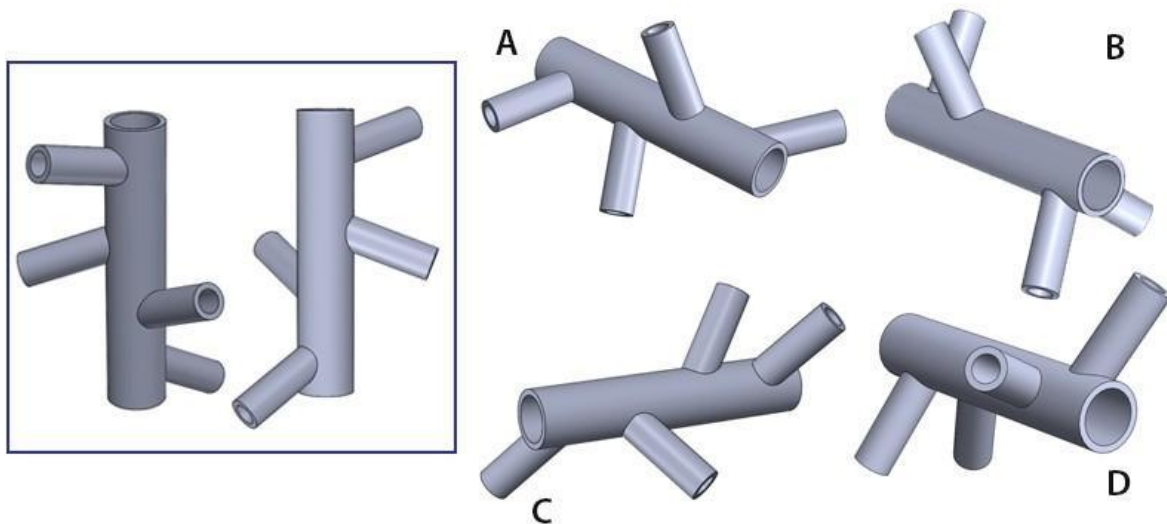
Ans- D

35. Gita placed some objects on a white plate. She took a photo with a camera. Without disturbing the arrangement of objects, she took two more photos while turning the plate. Soon after, Shefali placed same objects on a similar plate and under similar lighting conditions, took a photo. Which option shows Shefali's photo?



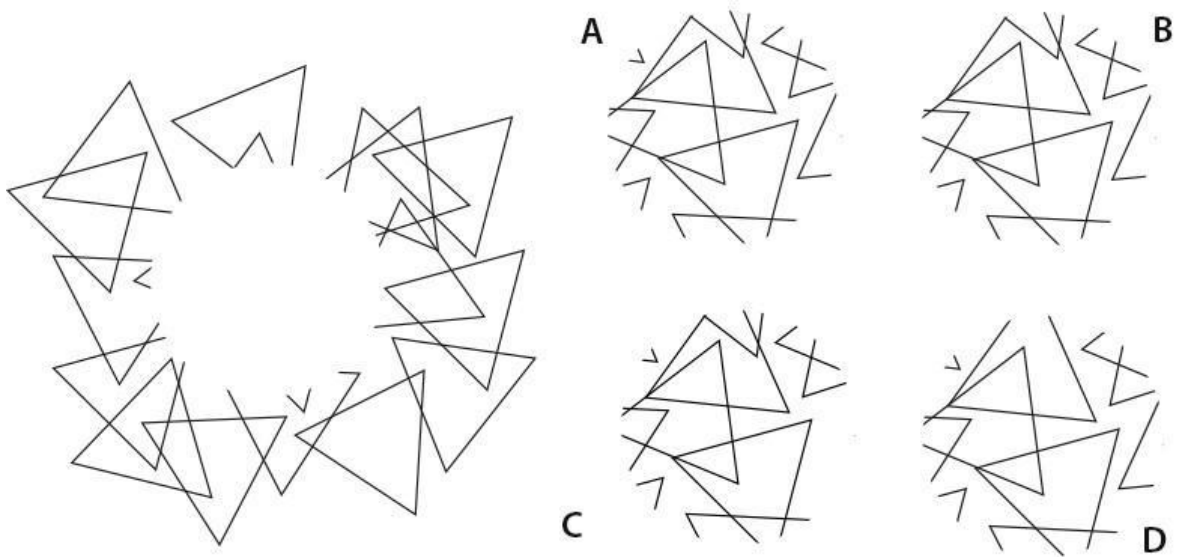
Ans- A

36. Two views of the same object are shown in the box. Which option depicts the same object?



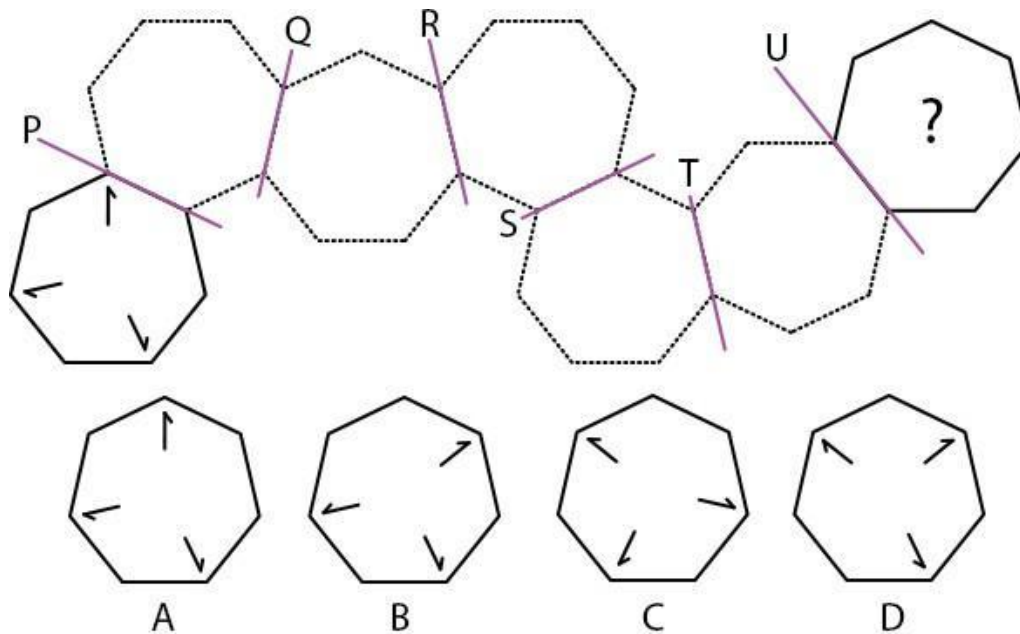
Ans- A

37. The image shown below is made up of triangles only, from which the central portion is missing. Identify the missing portion.



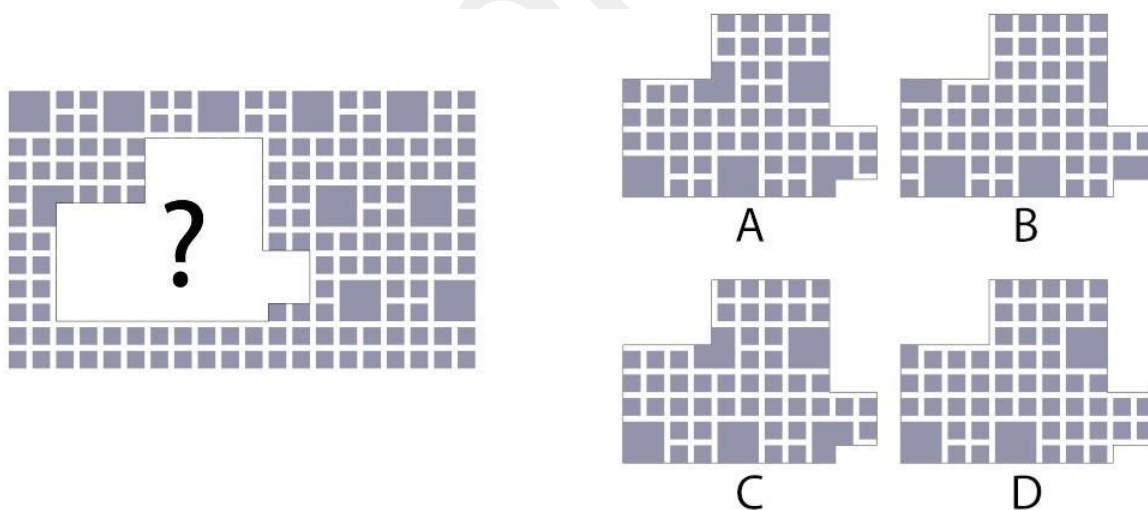
Ans- A

38. The figure shown below is mirrored along the axes P, Q, R, S, T and U. What would be the resultant figure?



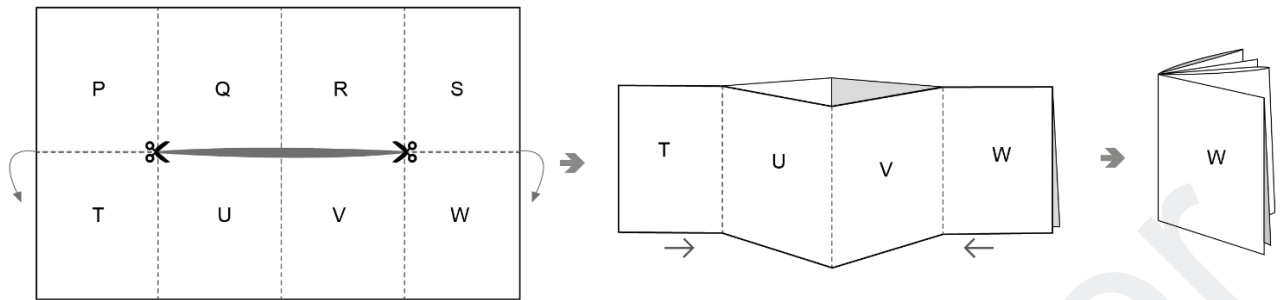
Ans- B

39.



Ans- A

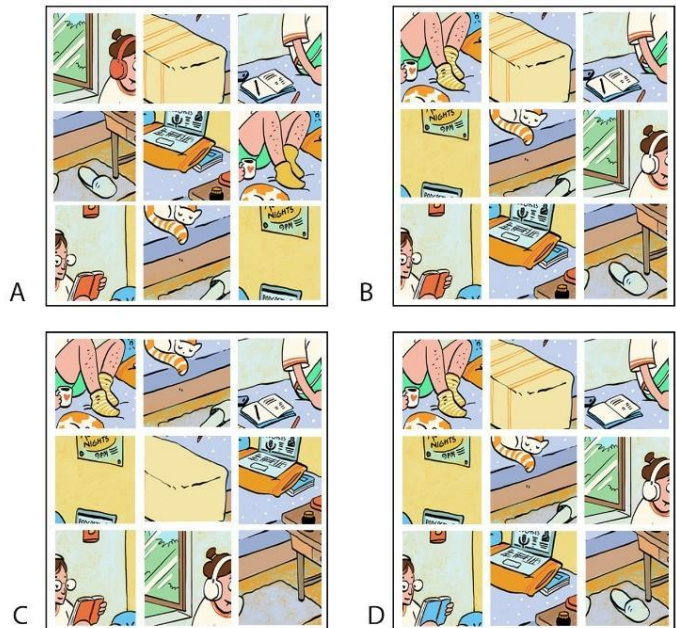
40. An A4 size paper is cut as shown below and folded across the dotted lines such that it has eight faces named from 'P' to 'W'. It is further folded to make a small booklet for the purpose of a zine design. From the given options, select the correct sequence of pages.



- A. P, Q, R, S, T, U, V, W
- B. W, S, R, V, U, Q, P, T
- C. W, S, R, Q, P, T, U, V
- D. W, V, U, T, S, R, Q, P

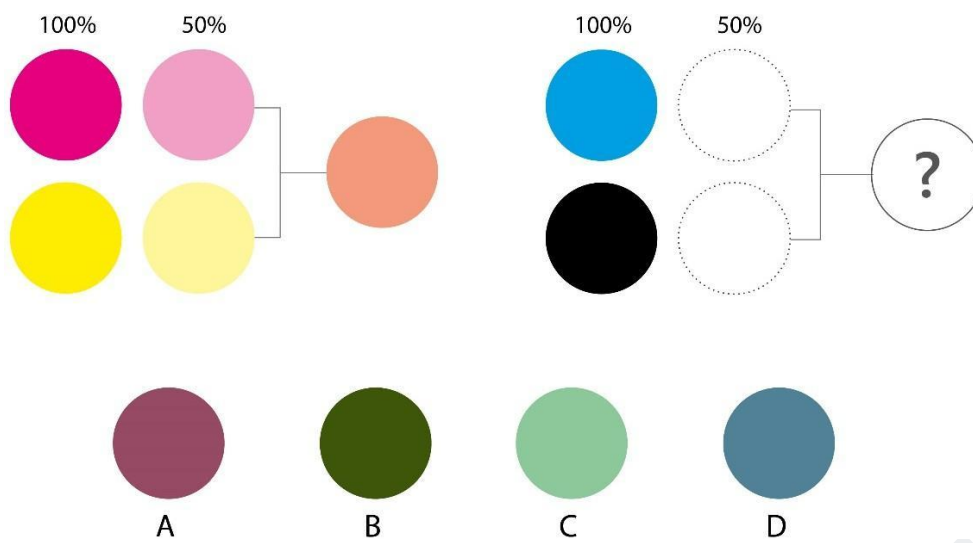
Ans- C

41. The left image below shows Nandu's study room. The image is sliced in 9 equal parts. From the given options, find the correct set of images.



Ans- B

42.



Ans- D

43. Fill in the blank with the same font.

INDIAN_

S

A

S

B

S

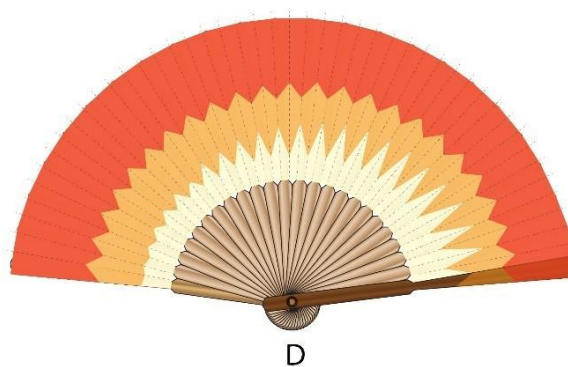
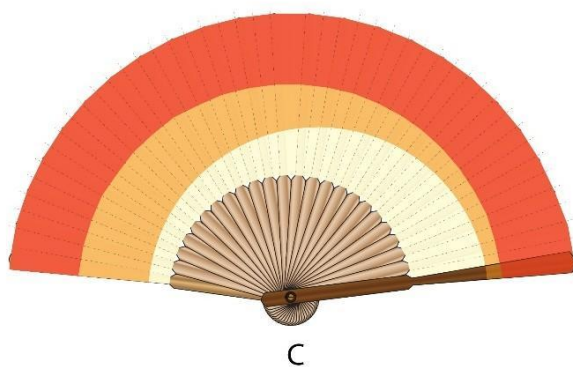
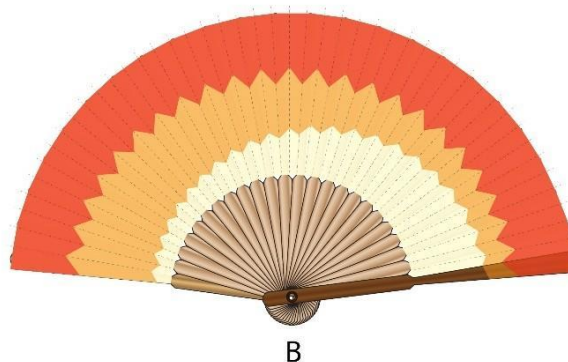
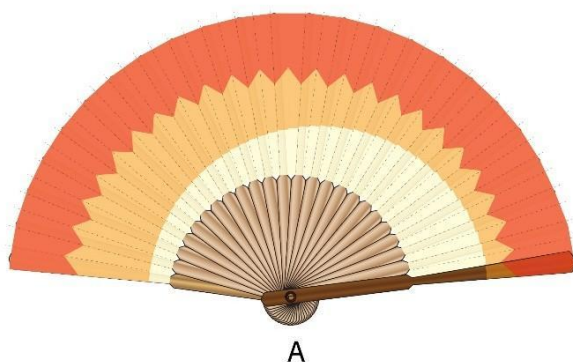
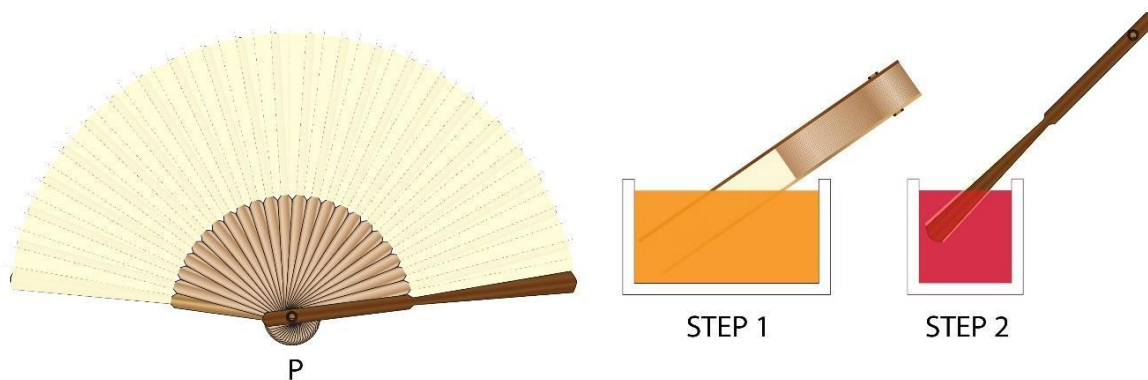
C

S

D

Ans- A

44. A folding paper fan P is dipped in orange colour and then in red colour as shown. Which option is the closest representation of the resultant fan?



Ans- A

45. A painting was created on the road as shown in the image. From the given options, identify which image was used to plan the painting (as seen from the top view).



A



B



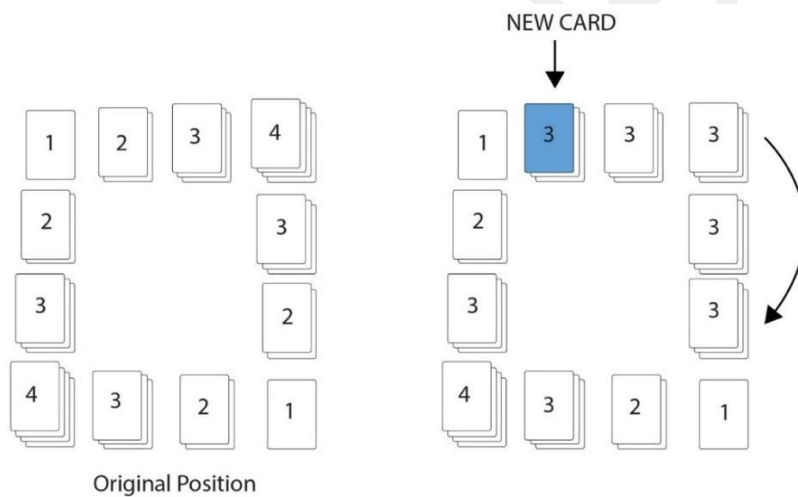
C



D

Ans- C

46. A game board was set with multiple decks of cards arranged in such a way that sum total of the cards on each side was equal ($1+2+3+4=10$). However, a new card was added on one side (blue card) and the cards were rearranged to maintain the rule, namely, that the sum total equals 10. How many cards can be added (starting from original position as shown on the left) before the game ends and no more cards can be added? Assume that every position must have at least one card and the sum total rule of 10 must be followed.



A. 4

B. 6

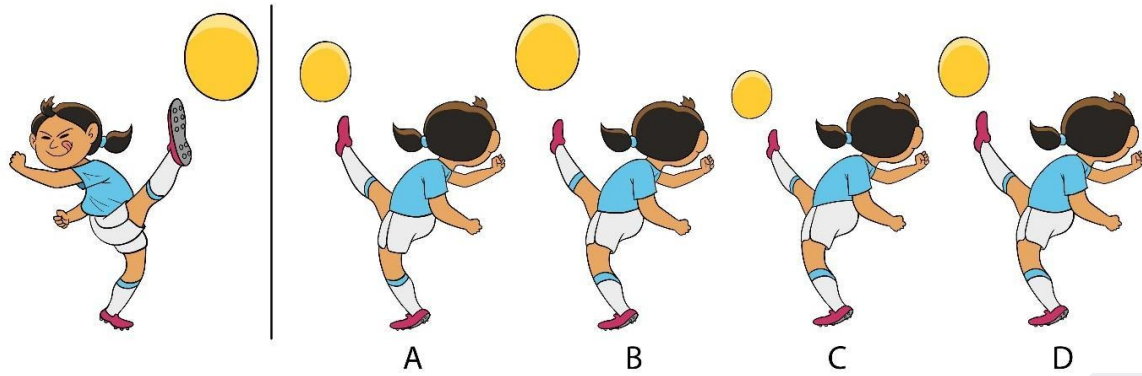
C. 8

D. 10

Ans- B

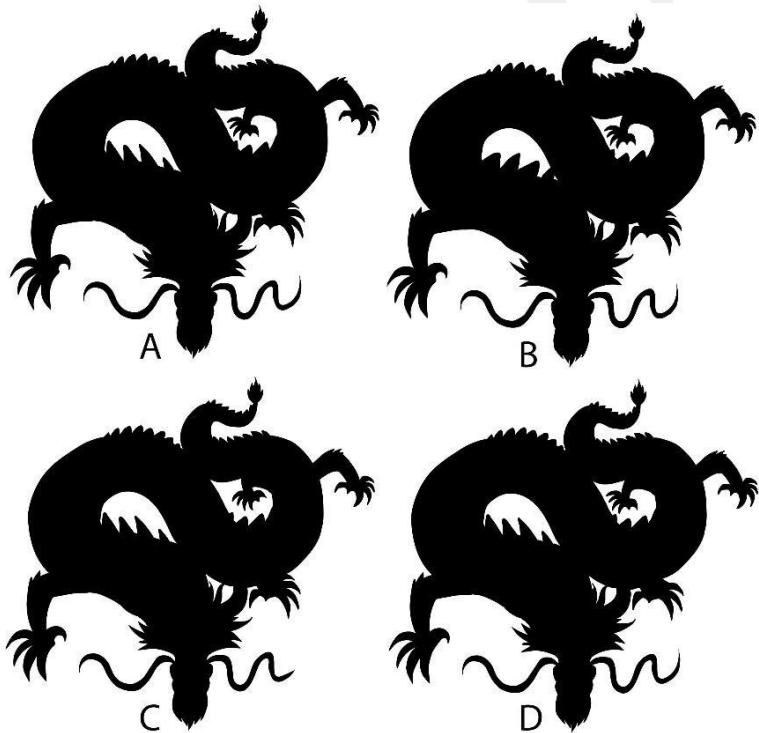
47. Fatima is shown kicking the football. Identify the most appropriate illustration of the

scene observed from behind.



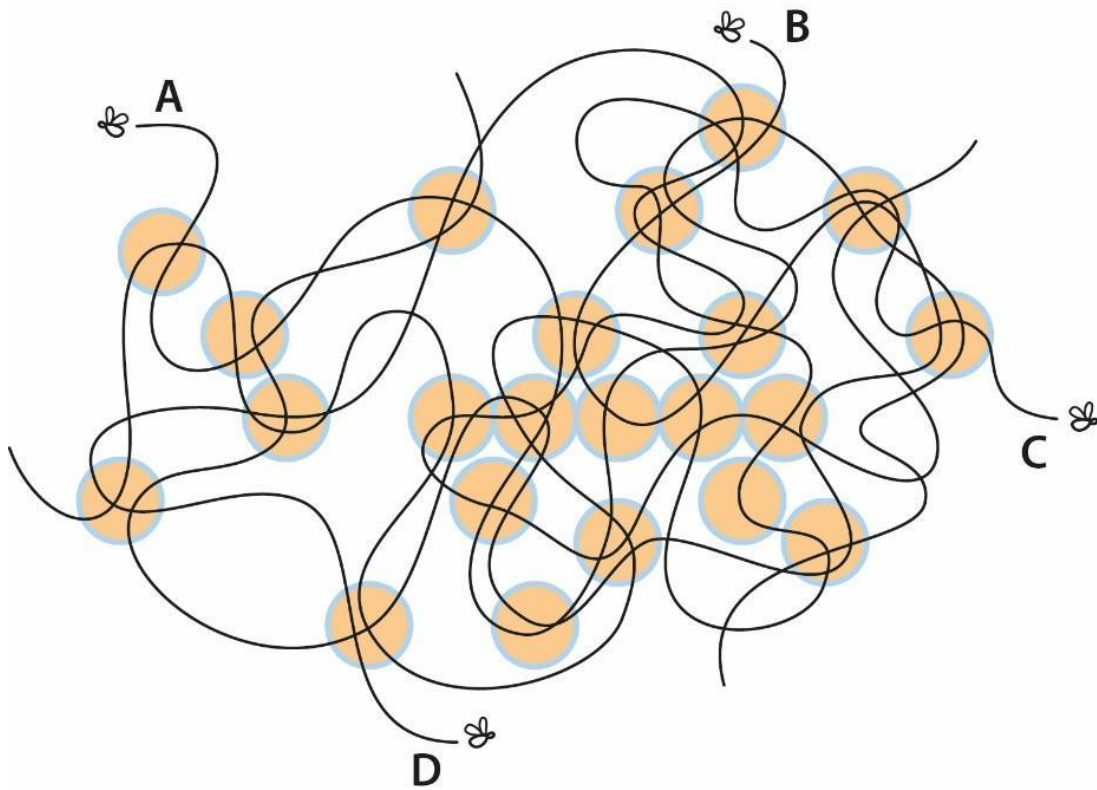
Ans- C

48. Identify the correct silhouette of the coloured dragon.



Ans- B

49. Shown below are trajectories of 4 flies over the juice glasses. Identify the fly that crossed over the maximum number of glasses.



Ans- B

50. A list of 8 country names in Vietnamese (shown in red), and their English translations (shown in blue) are given below. The translation list is mixed up. Which of the following statements is TRUE?

Áo, Ba Lan, Bỉ, Đan Mạch, Hà Lan
Na Uy, Phần Lan, Thụy Điển

Finland, Austria, Denmark, Norway,
Netherlands, Belgium, Sweden, Poland

- A. Đan Mạch is Denmark, Thụy Điển is Sweden, Phần Lan is Poland
- B. Hà Lan is Netherlands, Áo is Austria, and Ba Lan is Poland
- C. Bỉ is Belgium, Hà Lan is Finland, and Na Uy is Norway
- D. Na Uy is Netherlands, Thụy Điển is Denmark, and Phần Lan is Finland

Ans- B