



## CUET Memory Based General Test (22 May 2023)

Directions for Question 1 to 3: In each of the following questions, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

1. 4, 6, 9,  $13\frac{1}{2}$ , ?

- a)  $17\frac{1}{2}$
- b) 19
- c)  $20\frac{1}{4}$
- d)  $22\frac{3}{4}$

**Answer option (C)**

**Rationale:**

The pattern is multiple of  $\frac{3}{2}$

$$4 \times \frac{3}{2} = 6$$

$$6 \times \frac{3}{2} = 9$$

$$9 \times \frac{3}{2} = 13\frac{1}{2}$$

$$\rightarrow 13\frac{1}{2} \times \frac{3}{2} = \frac{27}{2} \times \frac{3}{2}$$

Hence option (C)

2. 4, 10, ?, 82, 244, 730

- a) 24
- b) 28
- c) 77
- d) 218

**Answer option (b)**

**Rationale:**

The pattern is multiple of  $(\times 3 - 2)$

$$4 \times 3 - 2 = 10$$

$$10 \times 3 - 2 = 28$$

$$28 \times 3 - 2 = 82 \dots \dots \text{and so on}$$

Hence option (b)

3. 6, 13, 25, 51, 101, ?

- a) 201
- b) 202
- c) 203

d) 205

**Answer option (c)**

**Rationale:**

The pattern is multiple of  $(\times 2 + 1)$  and  $(\times 2 - 1)$

$6 \times 2 + 1 = 13$

$13 \times 2 - 1 = 25$

$25 \times 2 + 1 = 51$

$51 \times 2 - 1 = 101$

$101 \times 2 + 1 = 202$

Hence option (c)

4. Directions for Questions 4 and 5: In each of the following questions, choose the correct water-image of the Fig. (X) from amongst the four alternatives (a), (b), (c) and (d) given along with it



(X)



A



B



C



D

- a) A
- b) B
- c) C
- d) D

**Answer option (c)**

**Rationale:**

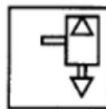
Water image is converted to upward and downward



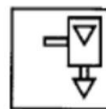
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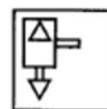
(X)



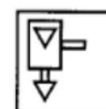
A



B



C



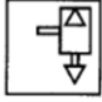
D

- a) A
- b) B
- c) C
- d) D

**Answer option (a)**

**Rationale:**

Water image is converted to upward and downward

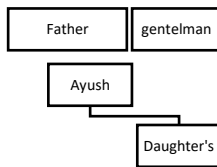


6. Pointing to a gentleman, Ayush said, "His only brother is the father of my daughter's father." How is the gentleman related to Ayush?

- a) Grandfather
- b) Father
- c) Brother-in-law
- d) Uncle

**Answer option: d)**

**Rationale:**

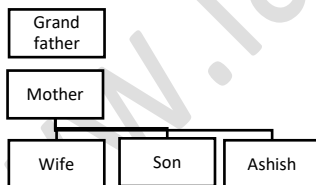


7. Pointing to a man, Ashish said, "He is the son of my wife's maternal's grandfather's only child". How is the man related to Ashish?

- a) Brother
- b) Brother-in-law
- c) Father
- d) Son

**Answer option:(b)**

**Rationale:**



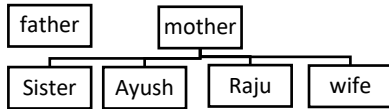
8. Pointing to a photograph of Ayush, Raju said, "The father of his sister is the husband of my wife's mother". How is Raju's wife related to Ayush?

- a) Mother
- b) Sister-in-law
- c) Daughter
- d) Sister



**Answer option(d)**

**Rationale:**



**Directions for question 9 to 12:**

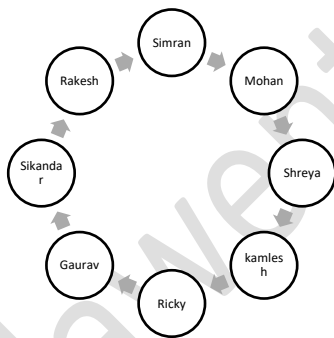
As per given information answer the below given questions. Eight people Sikandar, Shreya, Kamlesh, Ricky, Gaurav, Mohan, Rakesh and Simran are sitting around a circular table, facing the centre, not necessarily in the same order. Mohan is sitting third to the right of Ricky. There is only one person sitting between Ricky and Sikandar. There are only three people between Sikandar and Shreya. Rakesh is an immediate neighbour of Sikandar. There are only three people between Rakesh and Kamlesh. Gaurav is second to the right of Rakesh.

**9. Who is sitting opposite Simran ?**

- a) Ricky
- b) Gaurav
- c) Kamlesh
- d) Sikandar

**Answer option(a)**

**Rationale:**

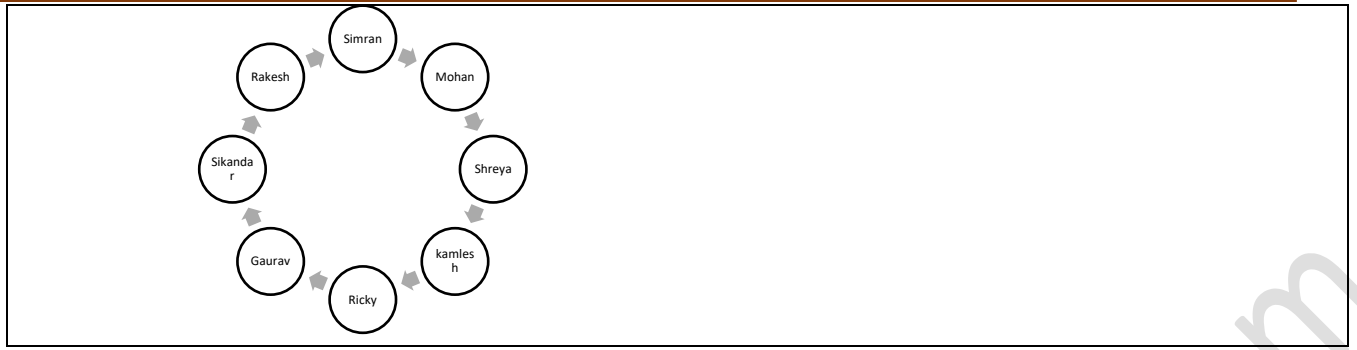


**10. Who are the immediate neighbours of Shreya?**

- a) Mohan and Ricky
- b) Kamlesh and Simran
- c) Mohan and Kamlesh
- d) Simran and Ricky

**Answer option:(c)**

**Rationale:**

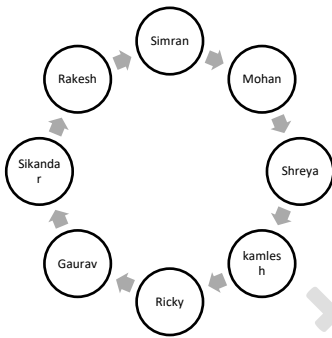


11. Which of the following information is not correct about Rakesh?

- a) Rakesh is second to the left of Gaurav
- b) Rakesh is sitting opposite Kamlesh
- c) Rakesh is third to right of Ricky
- d) Rakesh is third to right of Shreya

Answer option:(C)

Rationale:

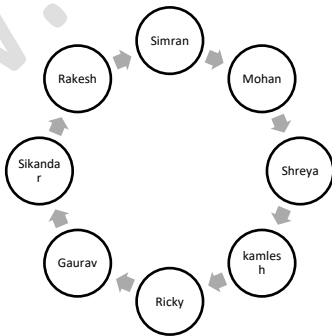


12. Who sits second to left of Mohan ?

- a) Rakesh
- b) Kamlesh
- c) Ricky
- d) Simran

Answer option(b)

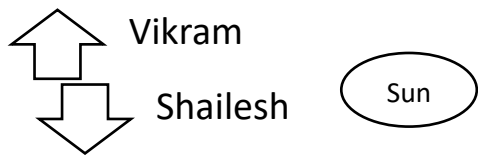
Rationale:



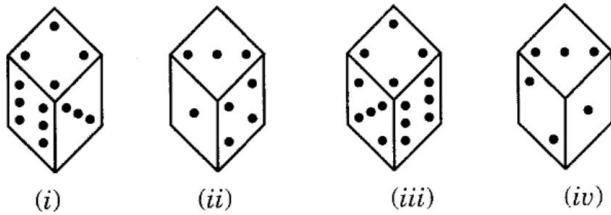
13. One morning after sunrise, Vikram and Shailesh were standing in a lawn with their backs towards other. Vikram’s shadow fell exactly towards left hand side. Which direction was Shailesh facing?

- a) East

- b) West
- c) North
- d) South

<b>Answer option(d)</b>
<b>Rationale:</b> 

14. How many dots are there on the dice face opposite the one with three dots?



- a) 2
- b) 4
- c) 5
- d) 6

<b>Answer option:(C)</b>
<b>Rationale:</b> From figures (i), (ii) and (iv), we conclude that 6, 4, 1 and 2 dots appear adjacent to 3 dots. Clearly, there will be 5 dots on the face opposite the face with 3 dots.

15. What number is opposite 3, if four different positions of a dice are as shown below?

- a) 4
- b) 6
- c) 3
- d) 2

<b>Answer option: b</b>
<b>Rationale:</b> From figures (i), (iii) and (iv), we conclude that 2, 6, 1 and 5 appear adjacent to 3. Clearly, 4 will appear opposite 3.

16. In a certain code, TWINKLE is written as SVHOJKD, then how would FILT written in the same code?

- a) EHKSDQR
- b) EHKUDQR
- c) EGKUDQR
- d) GJMSFST

<b>Answer option:b</b>
<b>Rationale:</b> Each letter in the word, except the middle letter, is moved one step backward while the middle letter is moved one step forward to obtain the corresponding letter of the code.

17. In a certain code, ROAD is written as URDG. How is SWAN written in that code'?

- a) VXDQ
- b) VZDQ



- c) VZCP
- d) UXIQ

**Answer option:b**

**Rationale:** Each letter in the word is moved three steps forward to obtain the corresponding letter of the code.

**Direction for the Questions 18 and 19:** In each of the following questions, there is a certain relationship between two given numbers one side of :: and one number is given on another side of:: while another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear. Choose the best alternative.

18. 6 : 18 :: 4 : ?

- a) 2
- b) 6
- c) 8
- d) 16

**Answer option:b**

**Rationale:**

$$\rightarrow A : \frac{A^2}{2}$$
$$\rightarrow 4 : \frac{4^2}{2}$$

19. 42 : 56 :: 72 : ?

- a) 81
- b) 90
- c) 92
- d) 100

**Answer option:b**

**Rationale:** Clearly,  $42 = 6 \times 7$ ;  $56 = 7 \times 8$ ;  $72 = 8 \times 9$ . So, missing number =  $9 \times 10 = 90$ .

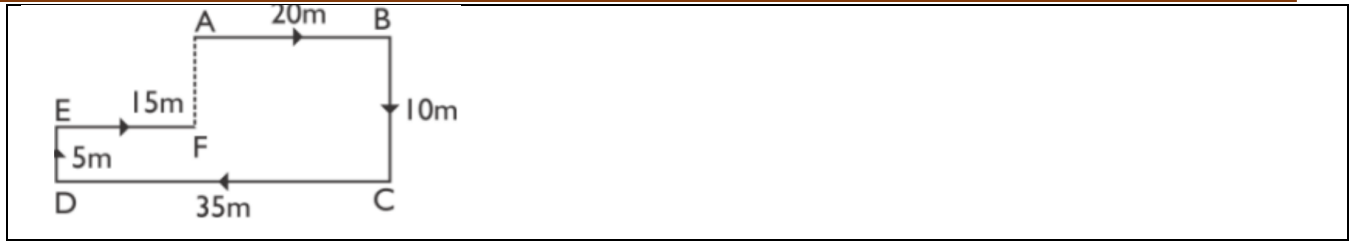
20. A man leaves for his office from his house. He walks towards East. After moving a distance of 20 m, he turns South and walks 10 m. Then he walks 35 m towards the West and further 5 m towards the North. He then turns towards East and walks 15 m. What is the straight distance between his initial and final positions?

- a) 0
- b) 5
- c) 10
- d) Cannot be determined

**Answer option:b**

**Rationale:**

Clearly,  $DC = AB + FE$ . So, F is in the line with A. Also  $AF = (BC - DE) = 5$  m. So, the man is 5 metres away from his initial position

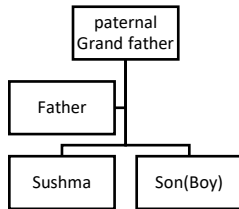


21. . Pointing towards a boy, Sushma said, “He is the son of only son of my paternal grandfather.” How is that boy related to Sushma?

- a) Uncle
- b) Brother
- c) Cousin
- d) Data inadequate

**Answer option:(b)**

**Rationale:**



22. An accurate clock shows 8 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?

- a) 144°
- b) 150°
- c) 168°
- d) 180°

**Answer option(d)**

**Rationale:**

From 8 o'clock to 2 o'clock there is 6 hour in 1 between hour, hour hand moves 30 degree  
So in 6 hour  $6 \times 30 = 180$  degree

23. A clock is started at noon. By 10 minutes past 5, the hour hand has turned through:

- a) 145°
- b) 150°
- c) 155°
- d) 160°

**Answer option:(c)**

**Rationale:**

According to formula

12:00 to 5:10

$$\begin{aligned} \text{That is 5 hour and 10 minutes} &= 5 \times 30 + 10 \times \frac{1}{2} \\ &= 150 + 5 \\ &= 155 \text{ degrees} \end{aligned}$$

Directions for Question 24 to 26: In each of the following questions, a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.







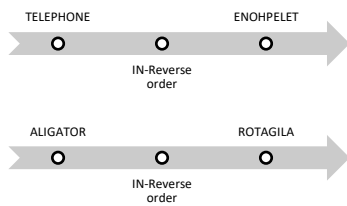
28. In a certain code, TELEPHONE is written as ENOHPLEET. How is ALIGATOR written in that code?

- a) ROTAGILA
- b) ROTAGAIL
- c) ROTAGILE
- d) ROTEGILA

**Answer option(a)**

**Rationale:**

The letters of the word are written in a reverse order to obtain the code



Directions for question 29: In each question some statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements.

29. Statements: I. Only a few Sisters are Brothers.

II. All Mothers are Brothers.

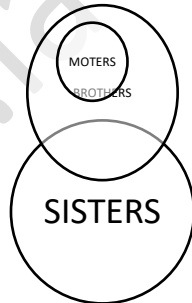
Conclusion: I. All Sisters can never be Mothers.

II. At least some Mothers are Sisters.

- (a) Only II follows
- (b) Only I follows
- (c) None of them follows
- (d) Both of conclusions follow

**Answer option:(b)**

**Rationale:**



Directions for Question 30 and 31: In each of the following questions, four words are given. Which of them will come at the first if all of them are arranged alphabetically as in a dictionary.

30. (i) Dream (ii) Drought (iii) Discourage (iv) Delight



- (a) Delight
- (b) Dream
- (c) Discourage
- (d) Drought

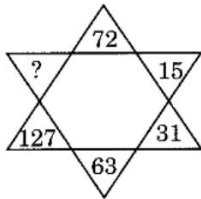
<b>Answer option:(a)</b>
<b>Rationale:</b> Order according to dictionary: Delight, Discourage, Dream, Drought

31. (i) Inspire (ii) Intelligent (iii) Indulgent (iv) Increment

- (a) Indulgent
- (b) Increment
- (c) Inspire
- (d) Intelligent

<b>Answer option:b</b>
<b>Rationale:</b> Order according to dictionary: Increment, Indulgent, Inspire, Intelligent..

32. Directions for Questions 32: Find the missing character in the given question:



- (a) 190 (b) 221 (c) 236 (d) 255

<b>Answer option:d</b>
<b>Rationale:</b> We have: $7 \times 2 + 1 = 15$ , $15 \times 2 + 1 = 31$ , $31 \times 2 + 1 = 63$ , $63 \times 2 + 1 = 127$ . So, missing number = $127 \times 2 + 1 = 255$ .

33. Find the simple interest on Rs. 10,000 for 2 years at 10% per annum.

- (a) 2000 (b) 2100 (c) 2500 (d) 2200

<b>Answer option:a</b>
<b>Rationale:</b> $\rightarrow SI = \frac{PRT}{100}$ $\rightarrow SI = \frac{10000 \times 10 \times 2}{100}$ <b>SI = 2000 Rs</b>

34. What is the compound interest on Rs. 5000 for 2 years at 10% per annum compounded annually?

- (a) Rs. 5000 (b) Rs. 1000 (c) Rs. 1050 (d) None of the above



Answer option:C

Rationale:

$$\text{CI for 1 year} = 5000 \times \frac{1}{10} = 500$$

$$\text{CI for 2<sup>nd</sup> year} = 5000 \times \frac{1}{10} + 500 \times \frac{1}{10} = 550$$

$$\text{CI} = 500 + 550 = 1050$$

35. A cricket pitcher won 70% of the games he pitched. If he pitched 40 ballgames, how, many games did he win?  
(a)28 games (b) 22 games (c) 30 games (d) 10 games

Answer option: a

Rationale:

According to question

$$\rightarrow 70\% \text{ of } 40 = 28 \text{ games}$$

36. Ages of two persons differ by 16 years. If 6 year ago, the elder one be 3 times as old the younger one, find their present age of younger one?

- (a)30 years (b) 14 years (c) 12 years (d) 18 years

Answer option:b

Rationale:

$$A - B = 16 \dots (I)$$

$$A - 6 = 3(B - 6)$$

$$A - 6 = 3B - 18$$

$$3B - A = 12 \dots (II)$$

After equating the above equation (i) and (ii)

$$2B = 28$$

$$B = 14 \text{ year}$$

37. Find the missing number in the series 1, 6, 15, .... , 45, 66, 91

- (a) 30 (b) 35 (c) 28 (d) 38

Answer option: C

Rationale:

Clearly, the given sequence follows the pattern : +5, +9, +13, +17, +21, +25, .....

$$\text{Thus, } 1 + 5 = 6, 6 + 9 = 15, \dots$$

so, missing term = 15 + 13 = 28. Hence, the answer is (C).

38.  $\rightarrow \frac{247 \times 247 \times 247 - 144 \times 144 \times 144}{144 \times 144 + 144 \times 247 + 247 \times 247} = ?$

(a) 103 (b) 247 (c) 256 (d) 1

**Answer option:a**

$$\rightarrow \frac{(a^3 - b^3)}{a^2 + b^2 + ab}$$

We know that one of the algebraic formula is  $a^3 - b^3 = \frac{(a-b)(a^2 + b^2 + ab)}{a^2 + b^2 + ab}$ , therefore, we solve the given expression  
 $= 247 - 144 = 103$

**39. A family of 4 members consumes 6 kg of sugar in a month. What will be the monthly consumption of sugar, if the number of family members becomes 6?**

(a) 6 kg (b) 9 kg (c) 10 kg (d) 4 kg

**Answer option: b**

**Rationale:**

$$\rightarrow \frac{4}{6} = \frac{6}{x}$$

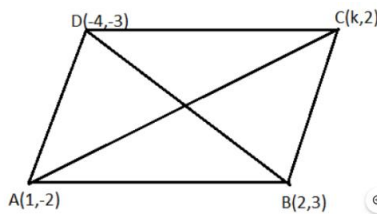
$$\rightarrow X = 36/4 = 9\text{kg}$$

**40. The point A (1, -2), B (2, 3), C (k, 2) and D(-4, -3) are the vertices of parallelogram. What will be the value of k?**

(a) -3 (b) -5 (c) 1 (d) 7

**Answer option: a**

**Rationale:**



As we know, diagonals of parallelograms bisect each other. So we can say the midpoint of AC and BD should coincide with each other.

In general if we coordinates of endpoints of a line are  $(x_1, y_1)$  &  $(x_2, y_2)$  then coordinate of midpoint is

$$\left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

So we can write coordinate of midpoint of AC is

$$\Rightarrow \left( \frac{1+k}{2}, \frac{-2+2}{2} \right)$$

$$\Rightarrow \left( \frac{1+k}{2}, 0 \right)$$

Similarly we can write coordinate of midpoint of BD is

$$\Rightarrow \left( \frac{-4+2}{2}, \frac{-3+3}{2} \right)$$

$$\Rightarrow \left( \frac{-2}{2}, 0 \right)$$

$$\Rightarrow (-1, 0)$$

As we discussed, the midpoint of AC and BD coincide with each other.

So we can write

$$\Rightarrow \frac{1+k}{2} = -1$$

$$\Rightarrow 1+k = -2$$

$$\Rightarrow k = -2 - 1$$

$$\Rightarrow k = -3$$

So the required value of k is -3.



41. A fraction becomes 9/11 if 2 is added to both the numerator and the denominator. If 3 is added to both numerator and denominator it becomes 5/6. Find the fraction.

- (a) 1/9 (b) 5/9 (c) 7/9 (d) 1/11

**Answer option: c**

**Rationale:**

Let the numerator be A and denominator be B

$$\rightarrow \frac{A+2}{B+2} = \frac{9}{11}$$

$$\rightarrow 11A + 22 = 9B + 18$$

$$\rightarrow 9B - 11A = 4 \dots (i)$$

$$\rightarrow \frac{A+3}{B+3} = \frac{5}{6}$$

$$\rightarrow 6A + 18 = 5B + 15$$

$$\rightarrow 5B - 6A = 3 \dots (ii)$$

After solving the above equation

$$\rightarrow 9B - 11A = 4 \dots (i) \times 5$$

$$\rightarrow 45B - 55A = 20$$

$$\rightarrow 5B - 6A = 3 \dots (ii) \times 9$$

$$\rightarrow 45B - 54A = 27$$

$$-A = -7$$

$$A = 7$$

$$B = 9$$

42. What is the use of Boric Acid?

- (a) manufacturing of pharmaceutical  
(b) manufacturing of cosmetic products  
(c) manufacturing of toothpaste  
(d) all of the above

**Answer option: (d)**

**Rationale:** Boric acid is typically utilized in industrial processing and manufacturing, but is also used as an additive in pharmaceutical products, cosmetics, lotions, soaps, mouthwash, toothpaste, astringents, and eyewashes.

43. What is the molecular mass of D2O?

- (a) 20.02 g/mol  
(b) 12.39 g/mol  
(c) 41.87 g/mol  
(d) None of the above

**Answer option: (a)**

**Rationale:** D2O is the formula of heavy water and the molecular mass of heavy water is 20.0276 g/mol.

44. Match the following-

- | A                 | B           |
|-------------------|-------------|
| (i) Orange City   | 1. Amritsar |
| (ii) Blue City    | 2. Nagpur   |
| (iii) Golden City | 3. Jodhpur  |
| (iv) Diamond City | 4. Surat    |
| (v) Pink City     | 5. Jaipur   |



- (a) 1 - (iii), 2 - (i), 3 - (ii), 4 - (iv), 5 - (v)
- (b) 1 - (v), 2 - (ii), 3 - (iii), 4 - (i), 5 - (iv)
- (c) 1 - (v), 2 - (iii), 3 - (i), 4 - (ii), 5 - (iv)
- (d) 1 - (iv), 2 - (v), 3 - (ii), 4 - (i), 5 - (iii)

**Answer option: (a)**

Rationale: Jodhpur is a popular tourist destination. It is popularly known as the "Blue City" among people of Rajasthan and all over India. Jaipur in Rajasthan is known as Pink city due to pink colour of the buildings. Golden Temple, Amritsar. The golden city of Amritsar dwells in Punjab and translates to "Pond of nectars". Surat, famous for its diamond cutting and polishing, is known as the Diamond City of India. Known as the "Orange City", Nagpur is the 13th largest city in India by population.

**45. Which of the following is leading exporter of cotton in the world?**

- (a) United States (b) Africa (c) India (d) None of the above

**Answer option: (c)**

Rationale: Among the given options India is the leading exporter of cotton. In 2021, the top exporters of *Cotton* were China (\$12.1B), India (\$10B), United States (\$7.21B), Vietnam (\$3.92B), and Brazil (\$3.61B).

**46. Which state in India has the highest life expectancy?**

- (a) Kerala (b) Punjab (c) Maharashtra (d) Haryana

**Answer option: (a)**

Rationale: Among the given options Kerala has the highest life expectancy its average 75.2 years.

**47. On the banks of which river is Jamshedpur situated?**

- (a) Barakar River (b) Subarnarekha River (c) Bansloi River (d) Damodar River

**Answer option: (a)**

Rationale: Jamshedpur is located at the confluence of the Kharkai and Subarnarekha Rivers. Subarnarekha is the principal river of Jamshedpur, which flows from west to south-eastern part of the territory.

**48. G20 summit 2023 will be held in which country?**

- (a) Indonesia (b) Germany (c) India (d) China

**Answer option: (c)**

Rationale: The New Delhi G20 Leaders' Summit held on 9-10 September 2023 brought the deliberations under our G20 Presidency to a successful culmination.

**49. Q49. Wings of Fire: An Autobiography written by.....?**

- (a) Subhas Chandra Bose (b) Dr. A. P. J. Abdul Kalam (c) Mahatma Gandhi (d) None of these

**Answer option: (b)**

Rationale: *Wings of Fire (1999)*, is the autobiography of the *Missile Man of India* and *President of India*, **Dr. A. P. J. Abdul Kalam**. It was written by him and **Arun Tiwari**.

**50. The battle of Plassey was fought in**

- (a) 1720 (b) 1716 (c) 1752 (d) 1757

**Answer option: (d)**

Rationale: The Battle of Plassey was fought in north-eastern India on 23 June 1757. Troops of the British East India Company, led by Robert Clive, came up against the forces of Siraj-ud-Daulah, the last Nawab of Bengal, and his French allies.