

# Air Force Group Y Free Mock Test - 1

1. The Asokan Edicts were deciphered first by \_\_\_\_.

- A. Sir John Marshall
- B. Sir William Jones
- C. Charles Wilkins
- D. James Prinsep

**Answer - D**

**Solution -**

- The **Edicts of Ashoka** are a collection of 33 inscriptions on the Pillars of Ashoka as well as boulders and cave walls made by the Emperor Ashoka of the Mauryan Empire during his reign from 269 BCE to 232 BCE.
- These inscriptions are deciphered first by **James Prinsep**.
- The edicts describe in detail the Ashoka's view about dhamma, an earnest attempt to solve some of problems that a complex society faced

2. Spot the erroneous parts, if any, in the following sentences:

Everything are packed and we are ready to leave. No error

A                      B                      C                      D

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

**Answer - A**

**Solution -**

Part (A) is erroneous in the sentence. Pronoun "everything" is singular and as per subject-verb agreement rule, singular subject would take singular verb. Thus, "are" should be replaced by "is".

3. *a, b, c, d, e, f, g* are consecutive even numbers and *j, k, l, m, n* are consecutive odd numbers. The average of all the numbers is

- A.  $3\left(\frac{a+n}{2}\right)$
- B.  $(7d+5l)/12$
- C.  $\frac{a+b+m+n}{4}$
- D.  $\frac{j+c+n+g}{4}$

**Answer - B**

**Solution -**

Average of  $a, b, c, d, e, f, g = d$   
 Average of  $j, k, l, m, n, = l$   
 $\therefore$  Sum of even number  $= 7d$   
 Sum of odd number  $= 5l$   
 Average of all the number  $= (7d+5l)/12$

**4. Identify the incorrectly spelt word.**

- A. Possible  
 B. Probable  
 C. Potentail  
 D. Punishable

**Answer - C**

**Solution -**

Option C has the incorrectly spelt word. The correct spelling is "potential" which means having or showing the capacity to develop into something in the future.

**5. A container has juice that lasts for 28 days. Due to a scheme in the market each container has 25% extra juice. If there is not any increase in consumption, then for how long did the juice last?**

- A. 30  
 B. 35  
 C. 40

D. 28

**Answer - B**

**Solution -**

Let container has juice =  $x$   
One day consumption =  $x/28$   
New container has juice =  $x + 25x/100 = 5x/4$   
Now no of days juice last =  $y$   
One day consumption =  $(5x/4)/y$   
 $x/28 = (5x/4)/y$   
 $y = 35$   
Juice lasts or 35 days

**6. The areas of three adjacent faces of a cuboid are  $x, y$  and  $z$ . If its volume is  $V$ , then which is true?**

- A.  $V = x^3y^2z^2$
- B.  $V^2 = xyz$
- C.  $V = \sqrt[3]{xyz}$
- D.  $V = \frac{x^2y}{z}$

**Answer - B**

**Solution -**

Let the dimensions be  $l, b, h$ , then volume of cuboid  $V = lbh$   
Also,  $x = lb, y = bh, z = hl$   
 $V = lbh$   
 $V^2 = l^2b^2h^2 = (lb)(bh)(hl) \Rightarrow V^2 = xyz$

**7. Identify the correct version of the bold part.**

Let's plan to meet in the evening, **should we?**  
A. would we  
B. shall not we  
C. shall we  
D. can we

**Answer - C**

**Solution -**

When the sentence begins with "let's" or "let us", the tag question is *shall we?* See examples:

- Let's go to the beach, **shall we?**
- Let's have a coffee, **shall we?**

**8. Spot the erroneous parts, if any, in the following sentences:**

There is not many traffic along the street where I live. No error

A                      B                                      C                      D

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

**Answer - B**

**Solution -**

'Many' is used for countable nouns like pen, chairs, boys etc and can't be used to describe the situation of excess traffic as it is an uncountable noun. The modifier 'much' is the correct replacement as it is used with uncountable nouns.

**9. Spot the erroneous parts, if any, in the following sentences:**

Neither of the ten employees has completed the assignment on time. No error

A                                      B                                      C                                      D

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

**Answer - B**

**Solution -**

Option A has the erroneous part of the sentence. Neither is used for only two people and when the concern is of more than two, none is used. So, 'neither' should be replaced by "none".

10.Direction: Select the missing numbers from the given alternatives.

1	3	5	7
2	4	6	8
3	7	11	?

- A. 19
- B. 15
- C. 13
- D. 17

**Answer - B**

**Solution -**

The pattern is as follows, odd number in row 1 and even numbers in row 2 and the sum of 1 and 2 rows in row 3.

$$1+2 = 3$$

$$3+4 = 7$$

$$5+6 = 11$$

$$7+8 = 15$$

11. Choose the word almost nearest in meaning to the word given below:

Futility

- A. Uselessness
- B. Insolvent
- C. Relevant
- D. Prudent

**Answer - A**

**Solution -**

Futility = the fact of having no effect or of achieving nothing; pointlessness or uselessness.

Uselessness = inability to achieve an intended purpose or desired outcome.

Insolvent = unable to pay debts owed.

Relevant = closely connected or appropriate to what is being done or considered.

Prudent = acting with or showing care and thought for the future.

So, option A is the correct answer.

**12. In the following question, select the odd number from the given alternatives.**

- A. 24 — 45
- B. 35 — 62
- C. 16 — 23
- D. 19 — 33

**Answer - B**

**Solution -**

$$45 - 24 = 21 \text{ (Multiple of 7)}$$

$$62 - 35 = 27 \text{ (Not multiple of 7)}$$

$$23 - 16 = 7 \text{ (Multiple of 7)}$$

$$33 - 19 = 14 \text{ (multiple of 7)}$$

Clearly, B is odd one.

**13. The wheel of a car made 200 rotations; how much distance did the car travel if the diameter of the wheel is 28 inches. (1 inch = 2.54cm)**

- A. 447.04 m
- B. 445.55 m
- C. 443.50 m
- D. 441.44 m

**Answer - A**

**Solution -**

Distance travelled in 1 rotation =  $2\pi r$  [circumference of the wheel]

$$\text{Radius} = 28/2 = 14 \text{ inches}$$

$$\begin{aligned} \text{Distance travelled in 200 rotations} &= 200 * 2\pi r = 400 * 22 * 14/7 \text{ inches} \\ &= 17600 \text{ inches} \end{aligned}$$

$$\text{Distance in cm} = 44704 \text{ cm}$$

$$\text{Distance in m} = 447.04 \text{ m}$$

**14. Read the passage given below and answer the questions that follow:**

If a country should have a message for its people; it should be a message of human dignity. The ideals of a nation should be of the freedom of ideas, speech, press, the right to assemble and the right to worship. A country should boldly proclaim to a world dominated by tyrants that all men are created equal and they are endowed by their Creator with certain inalienable rights and among these are life, liberty and the pursuit of happiness. This should be the source of the strength and power of a nation. If people have the freedom to live their lives in dignity, they can work with a sound mind and physical health. The moral, political, and economic stature of a country lies in the strength of its people. A nation should strive to be a more perfect, not the perfect country where the people are given a promise and a hope in their minds to work and cherish liberty, justice, and opportunity. We do not always get what we want when we want it but it is always better to believe that someday somehow, someday, we will get what we want.

**The ending part of the passages is about**

- A. Hope
- B. Want
- C. Perfection
- D. A promise

**Answer - A**

**Solution -**

The passage ends in an optimistic tone, urging us to have faith and hope as we do not always get what we want when we want but someday, somehow, someday, we will get what we want. Thus, option A is correct.

**15. Citizens of a country should work and cherish**

- A. love
- B. liberty, justice and opportunity
- C. liberty and happiness
- D. opportunity and justice

**Answer - B**

**Solution -**

The answer is given in the following line of the passage, "a nation should strive to be a more perfect, not the perfect country where the people are given a promise and a hope in their minds to work and cherish liberty, justice, and opportunity". So, we can say that the correct answer is option B.

**16.The source of the strength and power of a nation depends on**

- A. freedom of the people
- B. its people.
- C. the physical hearth of the people.
- D. rights of the people.

**Answer - D**

**Solution -**

It is given in the following lines of the passage, "A country should boldly proclaim to a world dominated by tyrants that all men are created equal and they are endowed by their Creator with certain inalienable rights and among these are life, liberty and the pursuit of happiness. This should be the source of the strength and power of a nation". So, we can say that the rights of the people are the source of the strength and power of a nation.

**17."Life, liberty, and the pursuit of happiness" are**

- A. Gifts of our Creator
- B. Pillars of equality
- C. Ideals of a nation
- D. Rights of all men

**Answer - D**

**Solution -**

As per the following line of the passage, "A country should boldly proclaim to a world dominated by tyrants that all men are created equal and they are endowed by their Creator with certain inalienable rights and among these are life, liberty and the pursuit of happiness", we can say that the correct answer is option D.

**18.If in a coded Language MADRAS is written as LBCSZT, how would BOMBAY be written?**

- A. APNCBX
- B. APLCZZ
- C. CPOCBZ
- D. CQOCBX

**Answer - B**

**Solution -**



As we can see from the given word and its code, the format of coding is:

$$M - 1 = L$$

$$A + 1 = B$$

$$D - 1 = C$$

$$R + 1 = S$$

$$A - 1 = Z$$

$$S + 1 = T$$

In the same way:

$$B - 1 = A$$

$$O + 1 = P$$

$$M - 1 = L$$

$$B + 1 = C$$

$$A - 1 = Z$$

$$Y + 1 = Z$$

∴ the required code is APLCZZ

**19. A person sells shirts at an equal marked price. At the festival time, he gives an offer that if someone buys four shirts, he'll give fifth shirt at Rs 200. A customer buys 30 shirts after paying Rs 18000. Find the marked price of each shirt.**

A. Rs 800

B. Rs 700

C. Rs 750

D. Rs 850

**Answer - B**

**Solution -**

Let the marked price of each shirt be x.

According to the question,

$$\text{Price of five shirts} = 4x + 200$$

$$\text{Price of 30 shirts} = 18000$$

$$(4x + 200) \times 6 = 18000$$

$$4x + 200 = 3000$$

$$4x = 3000 - 200 = 2800$$

$$x = \text{Rs } 700$$

**20. If + is replaced by x**

**- is replaced by +**

**x is replaced by ÷**

**÷ is replaced by -**

**Then answer the following question based on this information.**

$$15 \times 5 \div 3 + 1 - 1 = ?$$

- A. -1
- B. -2
- C. 3
- D. 1

**Answer - D**

**Solution -**

We will solve it stepwise

(i) + is replaced by  $\times \Rightarrow 15 \times 5 \div 3 \times 1 - 1 = ?$

(ii) - is replaced by +  $\Rightarrow 15 \times 5 \div 3 \times 1 + 1 = ?$

(iii)  $\times$  is replaced by  $\div \Rightarrow 15 \div 5 \div 3 \times 1 + 1 = ?$

(iv)  $\div$  is replaced by  $- \Rightarrow 15 \div 5 - 3 \times 1 + 1 = ?$

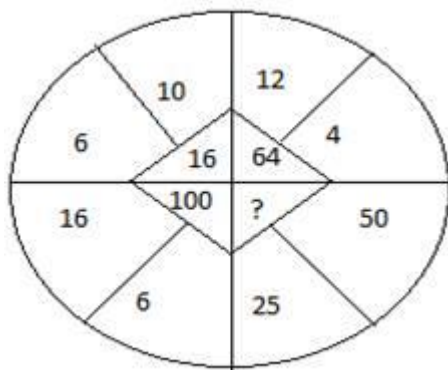
Now Solve Final Equation

$\Rightarrow 15 \div 5 - 3 \times 1 + 1 = ?$

$\Rightarrow 3 - 3 + 1 = 1$

Hence, option (D) is correct.

**21. In the following question, select the missing number from the given alternatives.**

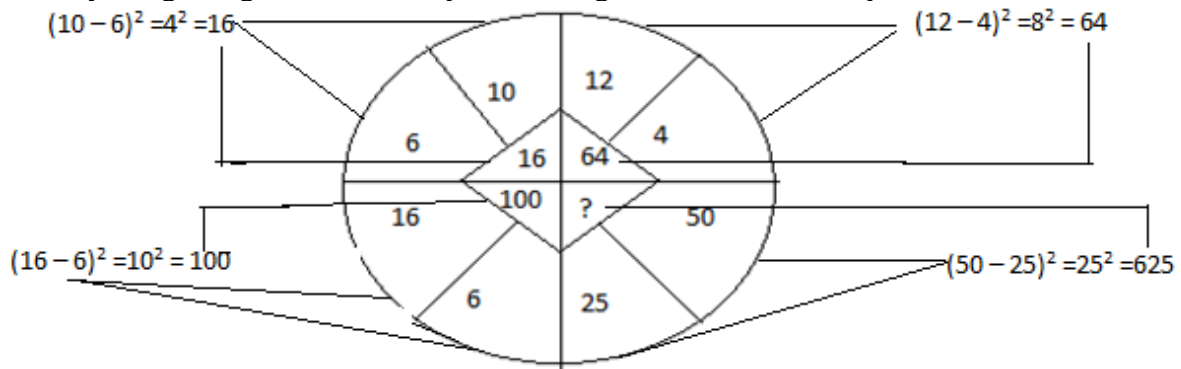


- A. 25
- B. 125
- C. 525
- D. 625

**Answer - D**

**Solution -**

Clearly, diagram given below depicts the logic involved in this question.



**22. In the following question, select the missing number from the given alternatives.**

2	4	8	64
7	2	14	196
3	6	18	?
1	2	2	4

- A. 512
- B. 324
- C. 144
- D. 421

**Answer - B**

**Solution -**

Here in each row, third number is product of first and second number, last number is product of all the previous numbers.

1<sup>st</sup>Row :  $2 \times 4 = 8$ ;  $2 \times 4 \times 8 = 64$

2<sup>nd</sup>Row :  $7 \times 2 = 14$ ;  $7 \times 2 \times 14 = 196$

4<sup>th</sup>Row :  $1 \times 2 = 2$ ;  $1 \times 2 \times 2 = 4$

In the similar way

3<sup>rd</sup>Row :  $3 \times 6 = 18$   $3 \times 6 \times 18 = 324$

Hence, B is the required answer.

**23. In a certain code 'MENACE' is coded as '632143' and 'HEADER' is coded as '731839'. In the same code how will 'CHARMED' be coded as?**

- A. 4719638
- B. 4716938
- C. 4719368
- D. 4791638

**Answer - A**

**Solution -**

The code is as follows:

M	E	N	A	C	H	D	R
6	3	2	1	4	7	8	9

Thus, the code will be 4719638

**24. Change the voice:**

**The fire destroyed the whole neighbourhood.**

- A. The whole neighbourhood is destroyed by the fire.
- B. The whole neighbourhood was destroyed by the fire.
- C. The whole neighbourhood was being destroyed by the fire.
- D. The whole neighbourhood is being destroyed by the fire.

**Answer - B**

**Solution -**

The given sentence is in active form of simple past tense. The structures for active/passive voices are:

Active: Subject + verb (IInd form) + object...

Passive: Object + was/were + verb (IIIrd form) + by + subject...

So, with the help of the above structures, we can convert the given sentence into passive voice:

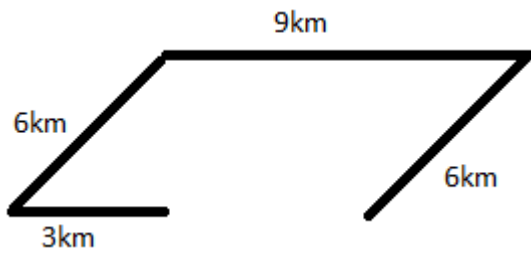
The whole neighbourhood was destroyed by the fire.

**25. Sunita travels 6 Km towards north east. Then travels 9 Km towards west. From there, she goes 6 Km south-west and finally goes 3 Km towards east. How far is she from her initial position?**

- A. 3 Km
- B. 6 Km
- C. 9 Km
- D. 12 Km

**Answer - B**

**Solution -**



She is  $(9-3) = 6\text{km}$  from her initial position.

**26. Choose the most appropriate answer and fill in the blanks:**

The plural form of the noun 'radius' would be \_\_\_\_\_.

- A. Radiuses
- B. Radii
- C. Radius
- D. Radis

**Answer - B**

**Solution -**

The plural of 'Radius' is 'Radii'. Hence, the correct answer is B.

**27. What is the value of  $\frac{1}{(0.1)^2} + \frac{1}{(0.01)^2} + \frac{1}{(0.5)^2} + \frac{1}{(0.05)^2} = ?$**

- A. 10504
- B. 10404
- C. 10004
- D. 11400

**Answer - A**

**Solution -**

$$\frac{1}{0.1 \times 0.1} + \frac{1}{0.01 \times 0.01} + \frac{1}{0.5 \times 0.5} + \frac{1}{0.05 \times 0.05}$$

$$= 100 + 10000 + 4 + 400$$

$$= 10504.$$

**28. Sum of two numbers is 7<sup>th</sup> times their difference. What is the ratio of their HCF to their LCM?**

- A. 3:4
- B. 1:7
- C. 1:12
- D. 12:1

**Answer - C**

**Solution -**

Let two numbers are  $x$  and  $y$  ( $x > y$ ) and their sum is  $S$ . Then,  
 $x + y = S$

$$x - y = \frac{1}{7}S$$

$$x = \frac{1}{2} \left( S + \frac{1}{7}S \right) = \frac{1}{2} \left( \frac{8}{7}S \right) = \frac{4}{7}S$$

$$y = \frac{1}{2} \left( S - \frac{1}{7}S \right) = \frac{1}{2} \left( \frac{6}{7}S \right) = \frac{3}{7}S$$

$$LCM(x, y) = \frac{LCM(4S, 3S)}{HCF(7, 7)} = \frac{12}{7}S$$

$$HCF(x, y) = \frac{HCF(4S, 3S)}{LCM(7, 7)} = \frac{1}{7}S$$

$$\text{Required ratio} = \frac{HCF(x, y)}{LCM(x, y)} = \frac{\frac{1}{7}S}{\frac{12}{7}S} = \frac{1}{12}$$

**29. Choose the word almost opposite in meaning to the word given below:  
 Barbarous**

- A. Accidental
- B. Constant
- C. Civilized
- D. Downward

**Answer - C**

**Solution -**

Barbarous means primitive and uncivilized.

Accidental means happening by chance, unintentionally, or unexpectedly.

Constant means occurring continuously over a period of time.

Civilized means polite and good-mannered.

Downward means towards a lower place or level.

Therefore, the antonym of 'barbarous' is 'civilized'.

**30. Choose the most appropriate answer and fill in the blanks:**

Ruhika was married \_\_\_\_\_ Akshay.

- A. with
- B. to
- C. by
- D. off

**Answer - B****Solution -**

The correct preposition to be used here is "to". Different prepositions with "marry" have been explained below:

To marry (someone)- this is the general verb. It is the time when people come together as husband and wife. Do not say I married with someone. It is not correct. And do not say I married to someone. It is also incorrect.

Correct example: I married Sam 3 years ago.

To get married- this talk about the time two people got married. It makes us think of the wedding.

Correct example: I got married.

To get married to (someone)- We think of who was married in the wedding. Do not say I got married with someone. It is incorrect.

Correct example: I got married to Sam.

To get married in (someplace)- We think of where the wedding took place.

Correct Example: I got married in Hawaii.

To be married- This means a state of being. Are you married or are you single?

Correct Example: I am married.

To be married (to someone)- Also state of being. But who is married to you?

Correct Example: I am married to Sam.

Conclusion- When you use to marry or to get married, think about the wedding. When you use to be married, think about the person's life now.

**31. Choose the correct one-word substitute for the following stem:  
A person who lives alone and avoids other people**

- A. Chaperon
- B. Recluse
- C. Antisocial
- D. Matron

**Answer - B**

**Solution -**

Chaperon = a person who accompanies and looks after another person or group of people.

Recluse = a person who lives alone and avoids going outside or talking to other people

Antisocial = hostile or harmful to organized society

Matron = a female nurse in a school

Hence, the correct answer is option B.

**32. Matt and Jill are in a row of people. Matt is 18th from the left side and Jill is 24th from the right side. If they interchange their places, Matt becomes 30th from the left, find the total number of people in the row?**

- A. 52
- B. 50
- C. 53
- D. 55

**Answer - C**



**Solution -**

Matt is 18th from the left side.

Jill is 24th from the right side.

After changing

Matt becomes 30th from the left

The total number of students will be  $24 + 30 - 1$  (Matt's position)  $= 54 - 1 = 53$ .

Hence, option C is the correct response.

**33. Arrange the given words in the sequence in which they occur in the dictionary.**

- 1) Fraudulent
- 2) Fraught
- 3) Fraternity
- 4) Franchise
- 5) Frantic

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

**Answer - B**

**Solution -**

Alphabetical order is:

- 4) Franchise
- 5) Frantic
- 3) Fraternity
- 1) Fraudulent
- 2) Fraught

→

4, 5, 3, 1, 2

**34. In a certain code language, "BORROW" is written as "769965" and "BOMB" is written as "7647". How is "WOMB" written in that code language?**

- A. 5647
- B. 5467
- C. 5677
- D. 5776

**Answer - A**

**Solution -**

Here 'B' is 7  
'O' is 6  
'R' is 9  
'W' is 5  
'M' is 4  
So, 'WOMB' is '5647'  
Hence, the correct option is A

**35. In the following question, select the related word from the given alternatives.**

**Climb: Mountain:: Swim : ?**

- A. Aquarium
- B. Fish
- C. River
- D. Ice

**Answer - C**

**Solution -**

Climb is an action and we climb on mountain in second part swim is an action and we swim in river. So, river is the correct answer which is option C.

**36. Change the narration:**

Puneet said, "I have been reading a storybook".

- A. Puneet said he has been reading a storybook.
- B. Puneet said that he had been reading a storybook.
- C. Puneet said that he has been reading a storybook.
- D. Puneet said that he had read a storybook.

**Answer - B**

**Solution -**

The rules for changing the direct speech into indirect speech are given below:

- The inverted commas (""") used in Direct Narration is removed in Indirect Narration and 'that' conjunction is used.
- If the reporting verb is in present or future tense, no changes are made to the verb/tense of the reported speech.
- If the reporting verb is in past tense, we make changes to the reported verb as per the below rule:

- Simple present changes to simple past.
- Present continuous changes to past continuous.
- Present perfect changes to past perfect.
- Present Perfect continuous changes to past perfect continuous.
- Simple past changes to past perfect.
- Past continuous changes to past perfect continuous.
- Can, shall, will, may, must change to could, should, would and might respectively.
- If there is any universal truth, habitual fact in the reporting speech, no changes are made to the reported verb's tense.

The rules for changing the pronouns correctly are:

- First person pronoun changes according to the subject of reporting speech.
- Second person pronoun changes according to the object of reporting speech.
- Third person pronoun does not change in indirect speech

**37.The third proportional of two numbers 7 and 21 is**

- A. 35
- B. 63
- C. 42
- D. 21

**Answer - B**

**Solution -**

Let the third proportion is x  
 Three no in proportion will be = 7: 21:: 21 : x  
 $7x = 21 \times 21$   
 $\Rightarrow x = 3 \times 21 = 63$

**38. Choose the most appropriate answer and fill in the blanks:**

I fear that he \_\_\_\_ be late since it is raining heavily.

- A. must
- B. had
- C. might
- D. ought to

**Answer - C**

**Solution -**

'Might' is used when referring to possibility and probability and other options can't be used to show probability. The sentence refers to a situation in future and talks about its probability. Hence, option C is correct.

**39. Choose the most appropriate answer and fill in the blanks:**

When in Rome, do \_\_\_\_\_ Romans do.

- A. like
- B. while
- C. a
- D. as

**Answer - D**

**Solution -**

The correct version is "When in Rome, do as Romans do" which means that it is advisable to follow the conventions of the area in which you are residing or visiting. Hence option D is correct.

**40. In the following question, select the related number from the given alternatives.**

**11 : 6 :: 15 : ?**

- A. 18
- B. 8
- C. 11
- D. 7

**Answer - B**

**Solution -**

The relationship is:  $2x-1:x$   
 $2*6-1:6$   
So, 11:6  
Similarly,  $2*8-1:8$   
So, 15:8  
Thus the correct option is B.

**41. Height of Kirti is more than Bhavna but less than Gauri, Gauri's height is more than Bihu and Champa. Champa's height is less than Bihu. Who is the tallest among them?**

- A. Gauri
- B. Kirti
- C. Bhavna
- D. Bihu

**Answer - A**

**Solution -**

Given that, Height of Kirti is more than Bhavna it means  $Kirti > Bhavna$  \_\_\_\_\_(1)

Height of Kirti is less than Gauri it means  $Kirti < Gauri$  \_\_\_\_\_(2)

Champa's height is less than Bihu it means  $Bihu > Champa$  \_\_\_\_\_(3)

Gauri's height is more than Bihu and Champa it means  $Gauri > Bihu > Champa$  \_\_\_\_\_(4)

On combining (1) and (2),

$Gauri > Kirti > Bhavna$  \_\_\_\_\_(5)

From(4) and (5), it can be observed that Gauri is the tallest among among all.

So, the correct answer is option A.

**42.Which acid is used in the preservation of foodstuffs?**

- A. Tartaric acid
- B. Malic acid
- C. Benzoic acid
- D. Oxalic acid

**Answer - C**

**Solution -**

- Benzoic acid in the form of its sodium salt, constitutes one of the most common chemical food preservatives.
- Sodium benzoate is a common preservative in acid or acidified foods such as fruit juices, syrups, jams and jellies, sauerkraut, pickles, preserves, fruit cocktails, etc

**43. Choose the most appropriate answer and fill in the blanks:**

The mind is a tool to achieve \_\_\_\_\_ levels of consciousness, wisdom and bliss.

- A. higher
- B. diagonal
- C. vertical
- D. horizontal

**Answer - A**

### **Solution -**

The blank requires a word which explains for what the mind is used as a tool to achieve consciousness, wisdom and bliss. 'Higher' refers to comparative degree of high, to refer to an advanced level of something. Also, 'diagonal' refers to a line or something joining two opposite corners, 'vertical' refers to a line or something at right angles of a horizontal plane and 'horizontal' refers to at right angles to the vertical plane. Therefore, higher is the answer as the mind can be a tool to achieve higher levels of consciousness, wisdom and bliss. Hence option A is the answer.

**44. Identify the correct response from the given premises stated according to the following symbols.**

**If**

**'+' stands for multiplication**

**'÷' stands for subtraction**

**'×' stands for addition**

**'-' stands for division**

**Which one of the equations is correct?**

A.  $45 - 9 \times 5 \div 7 = 10$

B.  $13 \times 8 - 2 \div 4 = 18$

C.  $18 + 3 \times 35 - 7 = 59$

D.  $10 \div 2 + 4 \times 6 = 12$

**Answer - C**

### **Solution -**

<b>Symbol</b>	<b>+</b>	<b>-</b>	<b>÷</b>	<b>×</b>
<b>Meaning</b>	<b>×</b>	<b>÷</b>	<b>-</b>	<b>+</b>

By checking Option A,

$$45 - 9 \times 5 \div 7 = 10$$

After changing the symbols,

$$45 \div 9 + 5 - 7 = 10$$

Applying BODMAS we get,

$$5 + 5 - 7 = 10$$

$$10 - 7 = 10$$

$$3 = 10$$

Therefore,  $45 - 9 \times 5 \div 7 = 10$  is not the correct equation.

By checking Option B,

$$13 \times 8 - 2 \div 4 = 18$$

After changing the symbols,

$$13 + 8 \div 2 - 4 = 18$$

Applying BODMAS we get,

$$13 + 4 - 4 = 18$$

$$17 - 4 = 18$$

$$13 = 18$$

Therefore,  $13 \times 8 - 2 \div 4 = 18$  is not the correct equation.

By checking Option C,

$$18 \times 3 + 5 = 59$$

After changing the symbols,

$$18 \times 3 + 35 \div 7 = 59$$

Applying BODMAS we get,

$$18 \times 3 + 5 = 59$$

$$54 + 5 = 59$$

$$59 = 59$$

Therefore,  $18 \times 3 + 5 = 59$  is the correct equation.

By checking Option D,

$$10 \div 2 + 4 \times 6 = 12$$

After changing the symbols,

$$10 - 2 \times 4 + 6 = 12$$

Applying BODMAS we get,

$$10 - 8 + 6 = 12$$

$$16 - 8 = 12$$

$$8 = 12$$

Therefore,  $10 \div 2 + 4 \times 6 = 12$  is not the correct equation.

So, the correct answer is option C.

**45. Ramayana was written by \_\_\_\_.**

A. Vedavyasa

B. Valmiki

C. Goswami Tulsidas

D. Lord Ganesh

**Answer - B**

**Solution -**

- Ramayana was originally composed in Sanskrit by the great sage **Valmiki**.
- Ramayana is an ancient Indian epic poem.
- It was written over 5000 years ago.
- It tells the story of Rama, Prince of Ayodhya, also believed to be the seventh incarnation of Vishnu.

- **Ramcharitmanas** was composed by the **16<sup>th</sup>-century** Indian bhakti poet **Goswami Tulsidas**.

**46.Short radio waves were discovered by \_\_\_\_.**

- A. Heinrich Hertz
- B. Henry Becquerel
- C. Marconi
- D. Einstein

**Answer - A**

**Solution -**

- \* Shortwave radio is radio transmission using shortwave radio frequencies.
- \* They were discovered by **Heinrich Hertz**.
- \* Short waves are directed at an angle into the sky that can be reflected back to Earth at great distances.

**47. A sentence, split into four parts, has been given. Choose the best order which produces the original sentence:**

challenging the constitutional (1)/ validity of Article 35A (2)/ to hear a batch of pleas (3)/ the Supreme Court is likely (4)

- A. 3214
- B. 4312
- C. 1243
- D. 3421

**Answer - B**

**Solution -**

The first sentence would be 4 as the subject "the supreme court" has been given here. The adverb "likely" is usually followed by preposition "to" which is given in sentence 3. Next sentence would be 1 as it completes 3 and 2 would be the last sentence. Thus, the correct sequence would be 4312.

**48.Setting of cement is a \_\_\_\_**



- A. Endothermic process
- B. Exothermic process
- C. Isochoric process
- D. Highly endothermic process

**Answer - B**

**Solution -**

- Exothermic process is a process that releases energy in the form of heat. In it, forming a chemical bond releases energy.
- In such reactions, heat is evolved.
- $\text{CaO(s)} + \text{H}_2\text{O (l)} \rightarrow \text{Ca (OH)}_2\text{(s)}$

This reaction occurs when water is added to dry cement to make concrete, and heat evolution of energy as heat is evident because the mixture becomes warm.

**49. Where is the Great Indian Bustard Sanctuary?**

- A. Maharashtra
- B. Uttarakhand
- C. Jammu & Kashmir
- D. Madhya Pradesh

**Answer - A**

**Solution -**

- The Great Indian Bustard Sanctuary is located in **Solapur, Maharashtra**.
- The Great Indian Bustard Sanctuary was established in 1979.
- The sanctuary happens to be discovered by Mr. B.S.Kulkarni in 1972.
- In 1979, the Government of Maharashtra declared Great Indian Bustard Sanctuary as a wildlife reserve.

**50. Recently, Sheila Dikshit passed away, she was former Chief Minister of\_\_\_\_\_.**

- A. Goa
- B. Delhi
- C. Gujarat
- D. Madhya Pradesh

**Answer - B**

**Solution -**

- Sheila Dikshit passed away in Delhi on 20<sup>th</sup> July 2019 at the age of 81 years.
- She was the **former chief minister of Delhi** and senior Congress leader.
- She served as the chief minister of Delhi from **1998 to 2013**.
- She was the **longest serving** chief minister of Delhi.
- She became an MP for the first time from **Kannauj Lok Sabha seat** in Uttar Pradesh in **1984**.