

Lockdown 3.0 Study Plan

Day 10



1. Which type of energy is stored in watch?

- A. Potential Energy
- B. Kinetic Energy
- C. Mechanical Energy
- D. None of these

Ans. A

Sol.

* **The energy stored in clock is potential energy.**

* This energy is stored in a spring.

* This energy is used to run the watch as it converts this potential energy to rotational kinetic energy.

2. Which of the following is NOT located in Odisha?

- A. Mayurbhanj Elephant Reserve
- B. Sambalpur Elephant Reserve
- C. Sonitpur Elephant Reserve
- D. Mahanadi Elephant Reserve

Ans. C

Sol.

• The Kameng-Sonitpur Elephant Reserve (KSER) is located in the eastern hill forests of Arunachal Pradesh and Assam in India, and its area is about 7500 sq. km.

• Project Elephant was launched in 1992 by the Government of India Ministry of Environment and Forest .

• There are around 32 elephant Reserves in India. The very first elephant reserve or elephant sanctuary was the Singhbhum Elephant Reserve of Jharkhand.

3. The Indian Army is set to commission the first batch of women soldiers by year _____.

- A. 2023
- B. 2022
- C. 2021
- D. 2020

Ans. C

Sol.

• After opening entry of female officers in eight additional streams, Indian Army is set to commission the first batch of women soldiers by 2021.

• As many as 100 women will be inducted into the Corps of Military Police of the Indian Army.

• With an aim to reach 1700 women soldiers in the military police, the Army recently announced its plan to induct 100 women soldiers every year for the next 17 years.

4. The Padma Awards are announced around _____ every year.

- A. Republic Day
- B. Independence Day
- C. Sadbhavana Diwas
- D. Hindi Diwas

Ans. A

Sol.

• Padma Awards, which were instituted in the year 1954.

• The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.

• The Awards are given in three categories Padma Vibhushan, Padma Bhushan and Padma Shri .

• The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year. The nomination process is open to the public. Even self-nomination can be made.

5. Who is known as the father of ATP cycle?

- A. Lipmann
- B. John Salk
- C. Aristotle
- D. Land Steiner

Ans. A

Sol.

• Lipmann – Father of ATP cycle

• John Salk – Founder of Polio Vaccination

• Aristotle – Father of Biology

• Land Steiner – Founder of blood group

6. Who is the only scientist in the world to have won the Nobel prize in Chemistry twice?

- A. Madame Curie
- B. Linus Carl Pauling
- C. Roger D. Kornberg
- D. Frederick Sanger

Ans. D

Sol.



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- Frederick Sanger is the only Nobel Laureate who has been awarded the Nobel Prize in Chemistry twice, in 1958 and 1980.
- In 1958 for his discovery of the structure of the insulin molecule, and in 1980 for his collaborative work on base sequences in nucleic acids with Paul Berg and Walter Gilbert.

7. Which city of India is known as 'The Athens of the East'?

- A. Madurai
- B. Kochi
- C. Patna
- D. Allahabad

Ans. A

Sol.

• **Madurai is known as 'The Athens of the East'.**

- It is situated on the banks of river Vaigai. It was the capital city for the great Pandya kings.
- The city is referred by various names including "Koodal", "Malligai Maanagar", "Naanmadakoodal" and "Thirualavai".

8. Which of the following gas was used as a chemical weapon during World War I?

- A. Phosgene
- B. Hydrogen
- C. Xenon
- D. Nitrous Oxide

Ans. A

Sol.

• **Phosgene, Chlorine, Mustard gas & tear gas were used in World War 1** as chemical weapons.

- Phosgene was responsible for 85% of chemical-weapons fatalities.
- Chemical Warfare was a major component of World War 1.

9. What carbon monoxide is made up of?

- A. 2 Oxygen and 1 Carbon
- B. 1 Oxygen and 1 Carbon
- C. 2 Oxygen and 2 Carbon
- D. 1 Oxygen and 2 Carbon

Ans. B

Sol.

• **Carbon Monoxide is made up of 1 oxygen and 1 carbon.**

- It is a colourless, odour-free gas which is highly toxic in nature and can cause serious health damages.

- It is produced by the incomplete burning of carbon-containing fuels like charcoal, kerosene, wood etc.

10. Carbon dioxide is approximately _____ % in the atmosphere.

- A. 0.004
- B. 0.02
- C. 0.04
- D. 0.4

Ans. C

Sol.

• **The carbon present in the atmosphere is 0.04%.**

- It is also called Dry Ice in solid state and It also plays a major role in greenhouse gases.

- Plants convert carbon dioxide to oxygen during a process called photosynthesis.

11. **Direction:** Select the most appropriate word to fill in the blank.

The unruly behavior of the students _____ their teacher.

- A. irritated
- B. pleased
- C. comforted
- D. calmed

Ans. A

Sol.

Let's understand the meaning of the given words:

Irritate : to make somebody angry

Please : to make somebody happy

Comfort : to try to make somebody less worried

Undisciplined behavior of the students makes the teacher angry, thus "irritate" is the appropriate choice

Hence option A is the correct answer.

12. **Direction:** Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.

A) It was an honor as well as a relief to the family of the deceased.

B) The district collector announced a gallantry award and financial aid for his family.



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C) A soldier died fighting in the battlefield.

D) The money was promptly disbursed from the Prime Minister's Relief Fund.

A. BACD

B. CBDA

C. BCAD

D. CDBA

Ans. B

Sol.

Sentence C will be the introductory sentence as it introduces us to the topic i.e. death of a soldier. Sentence B will follow sentence C as the use of pronoun "his" in B is used for the soldier mentioned in C. Sentence D will follow sentence B as it describes the source of the money. Sentence A will follow sentence D as it describes the financial aid as a relief to the family

Hence option B is the correct answer.

13. **Direction:** In the sentence identify the segment which contains the grammatical error.

She behaves in a such a cordial manner that everyone admires her.

A. that everyone

B. she behaves in a

C. admires her

D. such a cordial manner

Ans. B

Sol.

Option B has the grammatically incorrect part. Article "a" will be removed after "in" as we use an article just once and its correct position is before "cordial manner" only.

Hence option B is the correct answer.

14. Select the correctly spelt word.

A. Itinerary

B. Greivance

C. Sovereignty

D. Renaissance

Ans. C

Sol.

Option C has the correctly spelt word "Sovereignty" which means the quality of having supreme power or authority.

Let's see the spelling and meaning of other words:

Itinerary : a plan of a journey

Grievance : a complaint against an injustice

Renaissance : a revival of or renewed interest in something

15. Identify the segment in the sentence which contains the grammatical error. If there is no error, select No error'

Everyone except she have travelled by air.

A. Everyone except

B. No error

C. travelled by air

D. she have

Ans. D

Sol.

Here the error is in fourth option. "She have" will be replaced with "her has",

1) objective case (her) is used after "except"

2) singular verb is used for the subject "everyone"

Hence, option D is the correct answer.

16. Select the wrongly spelt word.

A. Grief

B. Sieze

C. Piece

D. Fierce

Ans. B

Sol.

The incorrectly spelt word is "Sieze" and its correct spelling is "Seize" which means to take hold of something suddenly and firmly.

Let's understand the meaning of other words:

Grief = great sadness

Piece = a part of something

Fierce = very angry or aggressive

Hence, option B is the correct answer.

17. **Find a word that is the synonym of-**

SPLENETIC A. crabby

B. balanced

C. overjoyed

D. compatible

Ans. A

Sol.

Let's understand the meaning of the given words:

Splenetic: bad-tempered; spiteful



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E.g.: because my uncle has a splenetic personality, it does not take a great deal to get on his bad side.

Crabby: annoyed and irritable

E.g.: very protective and family-minded, the sign can sometimes be emotional and **crabby**

Balanced: being in a state of proper equilibrium

Overjoyed: cause to feel extremely joyful or happy

Compatible: able to exist and perform in harmonious or agreeable combination

Hence, option A is the correct answer.

18. In the sentence, identify the segment which contains the grammatical error.

I love that big green old antique car that is always parked at the end of the street.

- A. i love that
- B. big green old
- C. antique car that
- D. at the end of the

Ans. B

Sol.

The given sentence is grammatically incorrect and an error lies in option B. Here, order of adjectives is incorrect. As order of adjectives are quality, size, age, color, qualifier, etc. 'Big' is the size, 'old' denotes age and 'green' is color. Thus, it should be 'big old green antique'.

19. 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 1st person pronoun will be changed according to the subject of the reporting speech i.e. I will be changed to he. The 2nd 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.

20. Select the most appropriate meaning of the given idiom.

Hold water

- A. to be busy
- B. to be deep
- C. to be fickle
- D. to be valid

Ans. D

Sol.

The idiom 'Hold water' means to be valid Hence, option D is the correct answer.

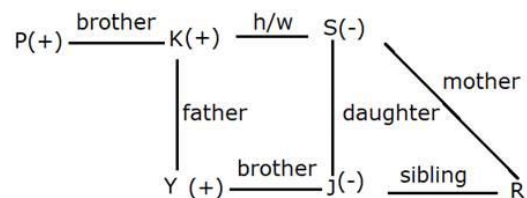
21. A + B means 'A is the mother of B';
 A - B means 'A is the brother of B';
 A × B means 'A is the father of B';
 A ÷ B means 'A is the daughter of B';
 If, P - K × Y - J ÷ S + R, then which of the following statements is NOT correct?

- A. K is husband of S
- B. J is daughter of P
- C. P is paternal uncle of R
- D. Y is son of S

Ans. B

Sol.

Venn-diagram of the expression P - K × Y - J ÷ S + R can be drawn as given below-



- From the above figure,
- A) K is husband of S.(True)
 - B) J is daughter of P.(False because J is the niece of P.)
 - C) P is paternal uncle of R.(True)
 - D) Y is son of S.(True)



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Hence, option B is the correct answer.

22. Select the option in which the words share the same relationship as that shared by the given pair of words.

Player: Team

- A. Purpose : Crowd
- B. Flower : Bouquet
- C. Ant : But
- D. Student : Teacher

Ans. B

Sol.

As, Team consists of players. Similarly, Bouquet is the keeping place of flowers.

Hence, option B is the correct answer.

23. Select the option that is related to the third term in the way as the second term is related to the first term and sixth term is related to fifth term.

72 : 14 :: 87 : ? ;:: 96 : 54

- A. 52
- B. 56
- C. 15
- D. 29

Ans. B

Sol.

Logic is:

72=7*2=14; 87=8*7=56; 96=9*6=54

Hence, the correct answer is option B.

24. Select the correct combination of mathematical signs to sequentially replace the * signs, to balance the following equation.

(12 * 7 * 6) * 13 * 6

- A. ×, -, ÷, =
- B. -, ÷, ×, =
- C. ÷, -, =, ×
- D. ×, =, ÷, -

Ans. A

Sol.

Check option A-

Given expression is-

(12 * 7 * 6) * 13 * 6

After interchanging-

(12 × 7 - 6) ÷ 13 = 6

Apply BODMAS,

(12 × 7 - 6) ÷ 13 = 6

Or, (84 - 6) ÷ 13 = 6

Or, 78 ÷ 13 = 6

So, 6=6

As we got the correct answer, so no need to check more options.

Hence, the correct answer is option A.

25. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

6	21	14
40	500	?
8	25	7

- A. 91
- B. 84
- C. 98
- D. 78

Ans. A

Sol.

Logic is:

Column 1:

6*8-40=48-40=8=present in 3rd row first column

Column 2:

21*25-500=525-500=25=present in 3rd row 2nd column

Column 3:

14*7-91=98-91=7=present in 3rd row 3rd column

Hence, the correct answer is option A.

26. The value of 3 - (9 - 3 × 8 ÷ 2) is:

- A. -21
- B. 0
- C. 21/2
- D. 6

Ans. D

Sol.

In the given expression applying BODMAS rule:

3 - (9 - 3 × 8 ÷ 2) = 3 - (9 - 3 × 4)

= 3 - (9 - 12)

= 3 - (-3)

= 3 + 3 = **6**

27. If the given number 925x85 is divisible by 11, then the smallest value of x is:

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

Ans. B

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Sol.

Divisibility rule of 11: The difference of the sum of the numbers in even positions and the sum of the numbers in the odd positions = **0 or 11 or any multiple of 11.**

$$\text{So, } (9 + 5 + 8) - (2 + x + 5) = 15 - x = 0 \text{ or } 11$$

∴ smallest possible value of $x = 4$

[Or you can substitute the options one by one in the given number and check]

28. While selling an article of marked price Rs. 5,040 at a discount of 40%, if a trader gains 20%, then the profit in rupees is:

- A. Rs. 720
- B. Rs. 504
- C. Rs. 642
- D. Rs. 2,520

Ans. B

Sol.

$$\text{MRP} = \text{Rs. } 5,040$$

$$\text{Discount\%} = 40\%$$

$$\text{SP} = 5,040 \times (60/100) = \text{Rs. } 3,024$$

$$\text{Since, Profit \%} = 20\%$$

$$\text{Then, CP} = 3,024 \times (100/120) = \text{Rs. } 2,520$$

$$\text{So, Profit} = 20\% \text{ of } 2,520 = \text{Rs. } 504$$

29. The average age of a number of persons in a group was calculated as 35 years, which was 2.5 years more than the correct average as there was an error in recording the age of two persons as 38.5 years and 40 years instead of 29 years and 22 years respectively. The number of persons in the group was?

A. 11

B. 12

C. 15

D. 13

Ans. A

Sol.

$$\text{Total increase in Age} = (38.5 + 40) - (29 + 22)$$

$$= 27.5$$

A.T.Q.

Let the total no. of Man be x .

$$37.5x - 35x = 27.5$$

$$2.5x = 27.5$$

$$x = 11$$

30. If $\sec\theta + \tan\theta = P$, $0^\circ < \theta < 90^\circ$, then

$\frac{p^2 - 1}{p^2 + 1}$ is equal to:

- A. Cosec θ
- B. $\sin \theta$
- C. $\cos \theta$
- D. $2\text{cosec } \theta$

Ans. B

Sol.

$$\text{We know that } \sec^2\theta - \tan^2\theta = 1$$

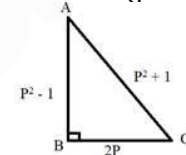
$$\text{Or } (\sec \theta + \tan \theta)(\sec \theta - \tan \theta) = 1$$

$$\sec\theta + \tan\theta = P, \text{ then}$$

$$\sec\theta - \tan\theta = 1/P$$

$$2\sec \theta = P + 1/P$$

$$\sec \theta = (p^2 + 1)/2p$$



$(p^2 - 1)$, $(p^2 + 1)$ and $2P$ are Pythagorean triplets.

$$\text{Then, } \frac{p^2 - 1}{p^2 + 1} = \sin \theta$$



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