

Lockdown 4.0 Study Plan

Day 6



1. Which type of rocks formed due to high pressure and temperature conditions?

- A. Igneous
- B. Sedimentary
- C. Metamorphic
- D. Complex

2. Which coal deposits are mostly found in Rajasthan area?

- A. Lignite
- B. Peat
- C. Anthracite
- D. Bituminous

3. Lushai Hills are extended in which states?

- A. Madhya Pradesh and Chhattisgarh
- B. Jharkhand and Bihar
- C. Telangana and Andhra Pradesh
- D. Mizoram and Tripura

4. Who administers union territories of India?

- A. Chief Justice of India
- B. Attorney General
- C. President
- D. Parliament

5. Which part of the Indian Constitution deals with the Citizenship provisions?

- A. Part IV
- B. Part II
- C. Part III
- D. Part V

6. Administrators of Andaman and Nicobar Islands, Delhi and Puducherry are designated as_____.

- A. Administrator
- B. Lieutenant Governors
- C. Governor
- D. Chief Commissioner

7. Which article deals with the administration of Scheduled areas and Tribal areas?

- A. Article 167
- B. Article 255
- C. Article 243
- D. Article 244

8. What is common among the following given sportspersons –

Gaurav Singh Gill, Bhamidipati Sai Praneeth , Pramod Bhagat, Anjum Moudgil

- A. All belong to shooting
- B. All received Arjun Award in 2019
- C. All received Rajiv Gandhi Khel Ratan Award in 2019
- D. All are coaches of different sports

9. First Earth observation Satellite was launched by ISRO on _____.

- A. 05 May 2005
- B. 10 May 2005
- C. 15 May 2005
- D. 20 May 2005

10. Which of the following is the communication satellite launched in Jan 2020?

- A. GSAT 29
- B. GSAT 30
- C. GSAT 31
- D. GSAT 32

Fill in the blanks with the correct form of idiom/proverbs by choosing the correct option given below.

11. The company _____ to advertise their new product.

- A. pulled out all the things
- B. pulled out all the starts
- C. pulled out all the terms
- D. pulled out all the stops

Read the sentence below. Pay attention to the words/phrases/segments in italics. Choose the appropriate ONE WORD substitutes for the phrases or clauses italicized.

12. We have to **blow 50 balloons of Hydrogen up** to **blow up** the building.

- A. We have to enhance Hydrogen to 50 balloons to save the building.
- B. We have to subtract Hydrogen to 50 balloons to burst the building.
- C. We have to detract Hydrogen to 50 balloons to shatter the building.
- D. We have to add Hydrogen to 50 balloons to explode the building.

Read the sentences given below. Pay attention to the segments/ phrases/ words given in italics. Choose the



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appropriate **ONE-WORD SUBSTITUTE** for the phrases and clauses italicized.

13. We cannot prevent ourselves sometimes from dreaming of performing **the forgivable sins** if not mortal sins.

A. We cannot prevent ourselves sometimes from dreaming of performing unpardonable if not mortal sins.

B. We cannot prevent ourselves sometimes from dreaming of performing morse if not mortal sins.

C. We cannot prevent ourselves sometimes from dreaming of performing most if not mortal sins.

D. We cannot prevent ourselves sometimes from dreaming of performing venial if not mortal sins.

Read the sentences given below. Pay attention to the segments/ phrases/ words given in italics. Choose the appropriate ONE WORD substitute for the phrases and clauses italicized.

14. The testimony from the witness will hopefully *free* my husband *from the criminal charges*.

A. The testimony from the witness will hopefully extempore my husband of the charges.

B. The testimony from the witness will hopefully exonerate my husband of the charges.

C. The testimony from the witness will hopefully escape my husband of the charges.

D. The testimony from the witness will hopefully evade my husband of the charges.

Read the sentences given below. Pay attention to the segments/ phrases/ words given in italics. Choose the appropriate ONE WORD substitute for the phrases and clauses italicized.

15. Every year, students *copy someone else's research paper and pass it* without realizing it because they just don't understand the research process and proper methods of citation

A. Every year, students plagiarize without realizing it because they just don't understand the research process and proper methods of citation

B. Every year, students sympathise without realizing it because they just don't understand the research process and proper methods of citation

C. Every year, students methodology without realizing it because they just don't understand the research process and proper methods of citation

D. Every year, students stealing without realizing it because they just don't understand the research process and proper methods of citation

Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no Improvement'.

16. He started on the bottom rung of the ladder and then gained success.

A. bottom rung of the stair

B. lower rung of the ladder

C. lower rung of the stair

D. No improvement

Identify the best way to improve the underlined part of the given sentence. If there is no improvement required, select 'no Improvement'.

17. The judge gave the verdict against the Government.

A. pronounced

B. declared

C. sentenced

D. No improvement

Select the most appropriate option to fill in the blank.

18. June 25th 1975 was considered a black day of Indian democracy as national emergency was _____ by Indira Gandhi owing to internal conflicts.

A. lamented

B. hammered

C. depraved

D. declared

Choose the most appropriate option to change the narration (direct/indirect) of the given sentence.

19. The children said, "They were busy playing thus they did not notice the stranger."



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- A. The children said that they had been busy playing so they have not noticed the stranger.
- B. The children said that they had been busy playing so they had not noticed the stranger.
- C. The children said that they have been busy playing so they had not noticed the stranger.
- D. The children said that they have been busy playing so they have not noticed the stranger.

Select the correct passive form of the given sentence.

20. The puppy spilled the milk as it drank.
- A. Spilling of the milk has been done by the puppy while drinking it.
 - B. The milk was spilt by the puppy as it drank.
 - C. While drinking it the puppy has spilt the milk.
 - D. The milk was being drunk by the puppy when it was spilled.



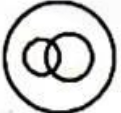

21. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

Swim, Swam, ?, Swimming, Swims

- A. Swimm
- B. Swimt
- C. Swimm
- D. Swimmen

22. Indicate which figure will best represent the relationship amongst the three :

Legumes Seeds, Peas, Kidney Beans

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

23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

21, 11.5, 13, 21.5, ?

- A. 47.5
- B. 41
- C. 45.5
- D. 43

24. Select the option that is related to the third number in the same way second number is related to the first number.

56 : 8 :: 110 :

- A. 11
- B. 9
- C. 13
- D. 10

25. Which two signs should be interchanged to make the following equation correct?

$$40 \div 20 + 50 - 10 \times 4 = 40$$

- A. \times and $+$
- B. $+$ and $-$
- C. $-$ and \div
- D. $+$ and \div

26. If $11\sin^2\theta - \cos^2\theta + 4\sin\theta - 4 = 0$, $0^\circ < \theta < 90^\circ$, then what is the value of

$$\frac{\cos 2\theta + \cot 2\theta}{\sec 2\theta - \tan 2\theta} ?$$

- A. $\frac{12 + 5\sqrt{3}}{3}$
- B. $\frac{10 + 7\sqrt{3}}{6}$
- C. $\frac{10 + 5\sqrt{3}}{3}$
- D. $\frac{12 + 7\sqrt{3}}{6}$

27. A boat can go 3.6 km upstream and 5.4 km downstream in 54 minutes, while it can go 5.4 km upstream and 3.6 km downstream in 58.5 minutes. The time (in minutes) taken by the boat in going 10 km downstream is:

- A. 54
- B. 50
- C. 48
- D. 45



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28. $(a + b - c + d)^2 - (a - b + c - d)^2 = ?$

- A. $4a(b - d + c)$
- B. $2a(a + b - c)$
- C. $4a(b + d - c)$
- D. $2a(b + c - d)$

29. In a circle with radius 5 cm, a chord is at a distance of 3 cm from the centre. The length of the chord is:

- A. 7 cm
- B. 3 cm
- C. 8 cm
- D. 4 cm

30. The average of five consecutive even numbers is m . If the next five even numbers are also included, the average of ten numbers will be:

- A. $m+5$
- B. $m+10$
- C. 10
- D. 11



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###ANSWERS###

1. Ans. C.

Metamorphic rocks formed due to high temperature and pressure conditions.

- Metamorphism is a process by which **recrystallisation and reorganisation of minerals** occur within a rock.
- Slate, schist, marble, quartzite etc. are major examples of metamorphic rocks.
- There are two types of thermal metamorphism

- a) Contact metamorphism
- b) Regional metamorphism

2. Ans. A.

In Rajasthan are mostly lignite coal is found.

- Giral of Barmar, Palana of Bikaner, Matasukh-Kasnau of Nagour districts are major lignite production sites of state.
- In India, lignite deposits are mainly found in Tamil Nadu, Puducherry, Kerala, Gujarat, Rajasthan and Jammu & Kashmir.
- Lignite is also called as Brown coal.

3. Ans. D.

- The Lushai hills are extended in **Mizoram and Tripura states.**
- This range mainly occupies Mizo and Lushais tribes.
- The Phawngpui or Blue Mountain is the largest peak of Lushai hills.

4. Ans. C.

- The Union Territories are administered by the **President** through an **administrator (Lieutenant Governor or Chief Commissioner).**
- He/She is appointed by the President of India with a suitable designation.

5. Ans. B.

- The Indian Constitution deals with the citizenship from **Articles 5-11 under Part II.**
- **Article 5 to 8** deal that how a person became citizen of India.

6. Ans. B.

- Union territories are administered by the President through an administrator, who is appointed by the President with a designation.
- Administrators of Andaman and Nicobar Islands, Delhi and Puducherry are designated as **LieutenantGovernors.**

- The Governor of Punjab is concurrently the **AdministratorofChandigarh.**

- The Administrator of Dadra and Nagar Haveli is concurrently the **Administrator of Daman and Diu.**

- Lakshadweep has a separate **Administrator.**

7. Ans. D.

- **Article 244** deals with the administration of Scheduled Areas and Tribal Areas.

- The provisions of the Fifth Schedule to the Constitution apply to the administration and control of Scheduled Areas and Scheduled Tribes in any state other than Assam, Meghalaya, Tripura and Mizoram.

8. Ans. B.

All the above given names are recipient of **Arjun Awards 2019.**

- Arjun Awards started in **1961.**
- It was given by ministry of sports and youth affairs.
- It includes cash prize of **50,000**, a scroll and a statue of Arjuna.
- **Arjuna Award** was first presented to six people in 1961 namely Saleem Durrani (Cricket), Gurucharan Singh Randhawa (Athletics), Sarabjeet Singh (Basketball), Manuel Aaron (Chess), Nandu Natekar (Badminton), and LB D'souza (Boxing).

9. Ans. A.

- **First Earth Observation Satellite** was launched by ISRO on **5 May 2005.**
- It was launched by **PSLV-C6** and **Weight** of this satellite is **1560 kg.**
- The **National Remote Sensing Centre** is responsible for acquisition, processing of data relayed by the Cartosat-1.

10. Ans. C.

- **GSAT-30** is the **communication satellite** launched on **17 Jan 2020.**
- **Launching mass** of GSAT-30 is approximately **3357kg** with a life period of more than 15 years.
- This is the **41st communication satellite** launched by **ISRO.**

11. Ans. D.

"pulled out all the stops" is the correct form of the idiom and the meaning is "to



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do everything possible in order to do or achieve something". Hence option D is correct.

12. Ans. C.

"blow something up" means "add air" and "blow up" means "explode". Both of them are present in option C. Hence option C is correct.

13. Ans. D.

Option (d) is the correct choice.

Venial -denoting a sin that is not regarded as depriving the soul of divine grace.

14. Ans. B.

Option B. is the correct choice. Exonerate means to prove that someone is not guilty of a crime or responsible for a problem, bad situation, etc. Hence, this word is the correct replacement for the given phrase in the sentence.

15. Ans. A.

Option A. is the correct choice. Plagiarize means to take the work or an idea of (someone) and pass it off as one's own. Therefore, it is the correct replacement for the given phrase.

16. Ans. D.

The underlined part is grammatically correct. The phrase "on the bottom rung of the ladder" means to occupy the most basic or fundamental position in a given group. Hence, option D is the correct answer.

17. Ans. A.

Sentenced means a punishment given by a judge in court to a person or organization. Declared means a fact that someone has publicly said or admitted. Among all the options, pronounced means very noticeable which is perfect for the word verdict (an opinion or decision).

18. Ans. D.

"Lamented" is a polite way of saying that someone has passed away or died.

"Hammered" means to be very drunk.

"Depraved" means to not have any principles or morals.

"Declared" means to formally announce something.

"Impaired" means to have a weakened effect on something.

Here the word "declared" is appropriate because it shows that Indira Gandhi had

formally communicated to the government of India about the need of a national emergency. Hence the answer is D.

19. Ans. B.

This is a simple sentence of direct narration. We will change it into the indirect narration accordingly. The inverted commas (" ") used in Direct Narration will be removed in Indirect Narration and "that" conjunction will be used. As 'said' in direct speech is not followed by an object, it would not change and remain the same in indirect speech. Now, there are two verbs in the reported speech and we will change their tenses accordingly. The past continuous will change to past perfect continuous and simple past will change to past perfect. Hence, option B is the correct answer.

20. Ans. B.

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 (IIInd form) + by + subject...

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

The milk was spilt by the puppy as it drank.

21. Ans. B.

Verb forms of Swim in English grammar-

V1- Swim

V2- Swam

V3- Swum

V4- Swimming

V5- Swims

Hence, missing term is Swum.

22. Ans. C.

23. Ans. C.

The series will be,

$$21 \frac{x0.5 + 1}{11.5} \quad 13 \frac{x1 + 1.5}{13} \quad 21.5 \frac{x1.5 + 2}{21.5} \quad \frac{x2 + 2.5}{45.5}$$

Hence, option (C) is the correct response.

24. Ans. A.



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$$\begin{aligned} x^2 - x : x &:: x^2 - x : x \\ 8^2 - 8 : 8 &:: 11^2 - 11 : 11 \\ 64 - 8 : 8 &:: 121 - 11 : 11 \\ 56 : 8 &:: 110 : 11 \end{aligned}$$

Hence, the correct response is option (a).

25. Ans. C.

According to the question,

If we interchange the - and ÷ sign the above equation become correct.

40 - 20 + 50 ÷ 10 × 4 (Applying BODMAS)

$$\rightarrow 40 - 20 + 5 \times 4$$

$$\rightarrow 40 - 20 + 20$$

$$\rightarrow 60 - 20$$

$$\rightarrow 40$$

Hence, option C is correct answer.

26. Ans. D.

$$11\sin^2\theta - \cos^2\theta + 4\sin\theta - 4 = 0$$

$$\text{Let } \sin\theta = x, \cos^2\theta = 1 - \sin^2\theta$$

Then,

$$11x^2 - (1 - x^2) + 4x - 4 = 0$$

$$\Rightarrow 11x^2 - 1 + x^2 + 4x - 4 = 0$$

$$\Rightarrow 12x^2 + 4x - 5 = 0$$

$$\Rightarrow 12x^2 + 10x - 6x - 5 = 0$$

$$\Rightarrow 2x(6x + 5) - 1(6x + 5) = 0$$

$$\Rightarrow (2x - 1)(6x + 5) = 0$$

$$\Rightarrow x = 1/2, -5/6$$

we will take $x = 1/2$ as $0^\circ < \theta < 90^\circ$ and $x = \sin\theta$ can't be negative.

$$\sin\theta = 1/2 = \sin 30^\circ$$

$$\text{then } \theta = 30^\circ$$

$$\text{Required } \frac{\cos 2\theta + \cot 2\theta}{\sec 2\theta - \tan 2\theta}$$

$$\begin{aligned} &= \frac{\cos 60^\circ + \cot 60^\circ}{\sec 60^\circ - \tan 60^\circ} = \frac{\frac{1}{2} + \frac{1}{\sqrt{3}}}{2 - \sqrt{3}} \\ &= \frac{\sqrt{3} + 2}{2\sqrt{3}(2 - \sqrt{3})} = \frac{\sqrt{3} + 2}{4\sqrt{3} - 6} \times \frac{4\sqrt{3} + 6}{4\sqrt{3} + 6} \\ &= \frac{12 + 8\sqrt{3} + 6\sqrt{3} + 12}{48 - 36} = \frac{24 + 14\sqrt{3}}{12} \\ &= \frac{12 + 7\sqrt{3}}{6} \end{aligned}$$

27. Ans. B.

Let speed of boat in still water = x kmph

And speed of water stream = y kmph

Upstream speed = x + y

Downstream speed = x - y

A.T.Q.

$$\frac{3.6}{x-y} + \frac{5.4}{x+y} = \frac{54}{60} \dots\dots\dots(i)$$

$$\frac{5.4}{x-y} + \frac{3.6}{x+y} = \frac{58.5}{60} \dots\dots\dots(ii)$$

Multiplying equations (i) by 3 and Equation (ii) by 2, we get-

$$\frac{10.8}{x-y} + \frac{16.2}{x+y} = \frac{162}{60}$$

$$\frac{10.8}{x-y} + \frac{7.2}{x+y} = \frac{117}{60}$$

Now subtracting eq.(i) from eq.(ii):

$$\frac{16.2 - 7.2}{x+y} = \frac{162 - 117}{60}$$

$$\frac{9}{x+y} = \frac{45}{60}$$

$$\Rightarrow x + y = 12$$

Time taken to cover 10 km in downstream = $10/12 \times 60 = 50$ minutes.

28. Ans. C.

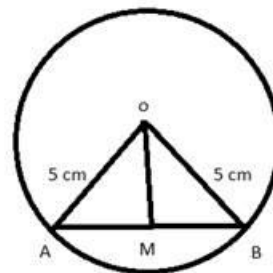
We know that $a^2 - b^2 = (a+b)(a-b)$

$$\begin{aligned} \text{Hence, } (a + b - c + d)^2 - (a - b + c - d)^2 \\ = (a + b - c + d + a - b + c - d) \cdot (a + b - c + d - a + b - c + d) \end{aligned}$$

$$\Rightarrow (2a)(2b - 2c + 2d) = 4a(b-c+d)$$

29. Ans. C.

Consider a circle of radius 5 cm and centre at O. AB is a chord at a distance of 3 cm from the centre.



In triangle AOB

Draw OM perpendicular to AB.

OM = 3 cm (given)

In right angled triangle AOM

$$(AO)^2 = (OM)^2 + (AM)^2$$

$$\Rightarrow (5)^2 = (3)^2 + (AM)^2$$

$$\Rightarrow (AM)^2 = (5)^2 - (3)^2 = 25 - 9 = 16$$

$$\Rightarrow AM = \sqrt{16} = 4$$

Hence length of the chord(AB) = $2 \times 4 = 8$ cm



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30. Ans. A.

Let five consecutive even numbers are =
 $x, x+2, x+4, x+6$ and $x+8$

We know that , Average =
$$\frac{\text{Sum of observations}}{\text{Total number of observations}}$$

Total number of observations

Hence, average of five consecutive even numbers =

$$(x+x+2+x+4+x+6+x+8)/5 = (5x+20)/5 = x+4$$

Given that average of five consecutive even numbers is m

$$\Rightarrow m = x+4$$

$$\Rightarrow x = m-4$$

Now, next five consecutive even numbers are = $x+10, x+12, x+14, x+16$ and $x+18$

Sum of next five consecutive even numbers =

$$x+10+x+12+x+14+x+16+x+18 = 5x+70$$

$$\text{Sum of ten numbers} = 5x+20+5x+70 = 10x + 90$$

We know that , Average =
$$\frac{\text{Sum of observations}}{\text{Total number of observations}} = \frac{10x+90}{10} = x$$

$$\Rightarrow x + 9 = m - 4 + 9 = m + 5$$



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