

Lockdown 4.0 Study Plan

Day 11



1. Who has been declared as the winner of the Raja Ram Mohan Roy award 2019 for excellence in journalism?

- A. Ravish Kumar
- B. Sudhir Chaudhari
- C. Rajat Sharma
- D. Ghulab Kothari

2. Which country has topped in the Global Innovation Index 2019?

- A. Germany
- B. UK
- C. USA
- D. Switzerland

3. On which factors do hydraulic pressure depends?

- A. Hydraulic oil
- B. Fluid contaminants
- C. The pump size
- D. All of the above

4. Which stone is a [silicate mineral](#) of [aluminium](#) and [fluorine](#)?

- A. Ruby
- B. Emerald
- C. Sapphire
- D. Topaz

5. Which is the highest peak of Africa?

- A. Mt. Everest
- B. Mt. Kilimanjaro
- C. Mt. Vinson
- D. Mt. Aconcagua

6. The second edition of IMNEX-19, the India Myanmar Naval Exercise has began at _____ on 19 October, 2019.

- A. Vishakhapatnam
- B. Pithoragarh
- C. Chennai
- D. Port Blair

7. Who invented Calculus?

- A. Lopez de Santa Anna,
- B. Isaac Newton and Gottfried Leibniz
- C. Rene Descartes
- D. Thomas Adams

8. Which of the following ruler of Chera dynasty is supposed to have left India and embraced Islam?

- A. Kulashekhar Alwar

- B. Rama Varma Kulashekhar
- C. Uthiyar Cheralathan
- D. None of these

9. Who initiated commissioned the Sarabeswara or Kampahareswara temple at Tribhuvanam?

- A. Kulothunga Chola III
- B. Kulothunga Chola II
- C. Aditya I
- D. Rajendra Chola II

10. **Nigambhoot Ghat is the memorial place of which Indian leader?**

- A. **K.R. Narayanan**
- B. **Morarji Desai**
- C. **Krishna Kant**
- D. Rajiv Gandhi

11. Select the correct active form of the given sentence.

When we arrived at his house, we were welcomed by his parents.

- A. When we arrived at his house, his parents welcomed us.
- B. After we arrived at his house, his parents had welcomed us.
- C. When his parents arrived at his house, we welcomed them.
- D. When we arrived at his house, we welcomed his parents.

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

12. The officer ordered the fellow to be arrested.

- A. The officer requested, "The fellow may be arrested."
- B. The officer told to the fellow, "Arrest him."
- C. The officer said, "Arrest the fellow."
- D. The officer said, "Why don't we arrest the fellow?"

Select the most appropriate option to fill in the blank.

13. This act, which was only decided upon after much hesitation, had a most _____ effect upon the national credit.

- A. beneficial



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- B. courageous
- C. deleterious
- D. confounding

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

14. All work and no play make jack a dull boy.
- A. makes
 - B. made
 - C. has made
 - D. No improvement

15. This is very the best content (a) of this book that (b) I read (c) no error (d)
- A. This is very the best content
 - B. Of this book that
 - C. I read
 - D. No error

Given below are four jumbled sentences. Pick the option that gives their correct order.

16. P. As a result, people end up saving a considerable amount of money while also saving the planet.

Q. Recycling your waste makes you more responsible in the way you use and dispose of it.

R. It is evident from studies that people who do this instinctively cut down on buying unwanted things from the supermarket.

S. They think of how to dispose of the packaging or the product after use before even buying it.

- A. RQSP
- B. SRQP
- C. QRSP
- D. QPRS

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

17. Karnataka receives most of its annual rainfall during the monsoon, whereas Tamil Nadu does not get much then and it has to wait still the advent of northeast monsoon.

- A. whereas Tamil Nadu does not
- B. wait still the advent of
- C. Karnataka receives most of its

D. get much then and it has

18. Select the wrongly spelt word.

- A. curious
- B. curse
- C. curry
- D. cursore

19. Select the wrongly spelt word.

- A. settle
- B. satallite
- C. satiate
- D. session

Select the most appropriate synonym of the given word.

20. INNUENDO

- A. implication
- B. evidence
- C. verification
- D. proof

21. Radius of a circle is diminished by 20% , the area is diminished by?

- A. 19%
- B. 36%
- C. 25%
- D. 21%

22. Find the area of the square whose

diagonal is equal to $8\sqrt{2}$ m.

- A. 81 m²
- B. 60 m²
- C. 64 m²
- D. 68 m²

23. Average of 9 numbers is 23. If 2 is added to each of the 9 numbers what will be the new average?

- A. 27
- B. 24
- C. 23
- D. 25

24. The average of three numbers of which largest is 18, is 13. If the smallest number is half the largest. What is the remaining number?

- A. 7
- B. 13
- C. 11
- D. 12



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25. Average of 15 numbers is 37. If 7 is subtracted from each of the 15 numbers what will be the new average?

- A. 31
- B. 30
- C. 32
- D. 35

26. If $12x^2 - 21x + 1 = 0$, then what is the value of $9x^2 + (16x^2)^{-1}$?

- A. $\frac{429}{8}$
- B. $\frac{465}{16}$
- C. $\frac{417}{16}$
- D. $\frac{453}{8}$

27. If $x + y + z = 3$, and $x^2 + y^2 + z^2 = 101$, then what is the value of $\sqrt{x^3 + y^3 + z^3 - 3xyz}$?

- A. 19
- B. 21
- C. 24
- D. 28

28. In a triangle ABC, AC = 8.4 cm and BC = 14 cm, P is a point on AB such that CP = 11.2 cm and $\angle ACP = \angle B$. What is the length (in cm) of BP?

- A. 4.12
- B. 2.8
- C. 3.78
- D. 3.6

29. Two circles of radius 7 cm and 5 cm intersect each other at A and B, and the distance between their centres is 10 cm, the length of the common chord AB is:

- A. $\frac{3\sqrt{66}}{5}$
- B. $\frac{4\sqrt{66}}{5}$
- C. $\frac{2\sqrt{74}}{5}$
- D. $\frac{3\sqrt{74}}{5}$

30. If the selling price of an article is 8% more than the cost price and the discount offered is 10% on the marked price of the article, then what is the ratio of the cost price to the marked price?

- A. 5 : 6
- B. 8 : 9
- C. 3 : 4
- D. 4 : 5



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###ANSWERS###

1. Ans. D.

• **The Press Council of India (PCI)** has presented the National Awards For Excellence in Journalism, 2019, on 6th November 2019.

• **Chairman of Rajasthan Patrika Pvt. Limited Ghulab Kothari** won the Raja Ram Mohan Roy award 2019.

• He was awarded for his contribution to journalism.

• The awardees will be honoured on November 16 by the PCI on the occasion of the **National Press Day celebration**.

2. Ans. D.

* **Switzerland** has topped in the Global Innovation Index 2019.

* India got **52nd** place in this Index.

* Switzerland remains number one is the GII index followed by Sweden, the United States of America, the Netherlands, the United Kingdom, Finland, Denmark, Singapore, Germany and Israel.

* **Union Minister of Commerce & Industry and Railways, Piyush Goyal** launched the Global Innovation Index (GII) 2019 in New Delhi on 24th July 2019.

3. Ans. C.

* Key factors affecting hydraulic pressure would be, **hydraulic oil, fluid contaminants and the pump size**.

* High quality hydraulic oil to be used as the working fluid allows for the least variation in the viscosity of the fluid.

* Fluid contaminants raise the temperature (causing viscosity to decrease), which will also lead to a shorter life span of your equipment.

* The pump size can directly affect the pressure and speed at which the working fluid will operate.

4. Ans. D.

* **Topaz** is a **silicate mineral** of **aluminium** and **fluorine** with the **chemical formula** $Al_2SiO_4(F, OH)_2$.

* It has wide utility in Jewellery as a cut gemstone.

* Topaz in its natural state is a golden brown to yellow.

* Brazil is the largest producer of topaz.

5. Ans. B.

• **Mt. Kilimanjaro is the highest peak of African continent.**

• It has an elevation of 4900 mt.

• The mountain is part of Kilimanjaro National Park and is a major climbing destination. Elephants and Cape buffaloes are found here.

• **Hans Meyer and Ludwig Purtscheller**, were the first ones to reach it's peak in 1889.

6. Ans. A.

• The second edition of IMNEX-19, the India Myanmar Naval Exercise has began at **Visakhapatnam, Andhra Pradesh on 19 October, 2019**.

• The Sea Phase of the exercise is scheduled to be from 20 October to 22 October.

• The opening ceremony was conducted onboard INS Ranvijay.

• The exercise aims to grow maritime cooperation between the two navies.

7. Ans. B.

• **Isaac Newton and Gottfried Leibniz** independently invented calculus in the mid-17th century.

• Newton considered variables changing with time, Leibniz thought of the variables x and y as ranging over sequences of infinitely close values.

• The development of Calculus can roughly be described along a timeline which goes through three periods: Anticipation, Development, and Rigorization.

8. Ans. B.

• The last Chera King was **Rama Varma Kulasekhara** who ruled from 1090 to 1102 AD.

• His contemporary Chola ruler was Kulothunga Chola-I with whom he fought a war.

• He is supposed to have **left India and embraced Islam**.

• This ended the Chera dynasty and the rulers were confined to the area around Travancore.

9. Ans. A.

• **Kulothunga Chola III** was the ruler of the Chola empire from **1178 to 1218**



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CE, after succeeding **Rajadhiraja Chola II**.

• He initiated commissioned the Sarabeswara or Kampahareswara temple at Tribhuvanam near Kumbakonam which is considered a great specimen of Dravidian Architecture.

10. Ans. C.

C

*** Nigambhoot Ghat is the memorial place of K.R. Narayanan.**

*** He was 10th President of India and prior to this he served as Ninth Vice President of India.**

* He began his career in India as a member of the [Indian Foreign Service](#) in the [Nehru administration](#).

11. Ans. A.

The doer of verb 'welcome' is 'his parents', so it should come with the verb. This condition is only fulfilled in option A. Hence option A is correct.

12. Ans. C.

The following transformations are observed when we change indirect narration into direct narration. The reported speech undergoes changes only when the reporting verb is in past tense. Here, 'ordered' gets changed to 'said'. Based on this observation we can eliminate option A. Option D is also eliminated as orders are never given in interrogative sentences. Only option B fulfills the condition and hence is the correct answer.

13. Ans. C.

Let us understand the meaning of the given options-

Deleterious- causing harm or damage.

Confounding- cause surprise or confusion in (someone), especially by not according with their expectations.

Deleterious is the best fit here, as the act which has been talked about in the sentence, will effect the country and harm the development of the country.

14. Ans. D.

The underlined segment is correct. All work and no play make jack a dull boy is a saying which means it is not healthy to spend all your time working.

15. Ans. A.

the error is in the part "a". Use "the very best" in place of "very the best". The right constructions are (the + very + superlative degrees) (much + the + superlative degrees)

16. Ans. C.

All the statements except Q start with pronoun or connectors, indicating that they must be followed by other statements. The determiner "this" in R refers to "recycling", hence, R follows Q. Since R mentions what people think, S takes the idea further by talking about people. The pronoun "they" refers to people. P mentions the result and concludes the passage. Thus, the sequence after rearrangement is QRSP, and option C is the correct answer.

17. Ans. B.

Option B has the grammatically incorrect part. Here the time for which Tamil Nadu has to wait is being indicated. Hence, the preposition "till" must be used because for time condition 'till' is used and not 'still'.

18. Ans. D.

The wrongly spelt word is given in option (D). The correct spelling is cursor which means pointer.

Curious means eager to investigate and learn.

Curse means wish harm upon.

Curry means give a neat appearance, Therefore, option (D) is the correct choice.

19. Ans. B.

The wrongly spelt word is given in option (B). The correct spelling is satellite.

Settle means resolve.

Satiate means fill or replete.

Session means a meeting for execution of a group's functions

Therefore, option (B) is the correct choice.

20. Ans. A.

The meanings of the words are:

Innuendo(तान्ना): an allusive or oblique remark or hint, typically a suggestive or disparaging one.

Implication(आशय): the conclusion that can be drawn from something although it is not explicitly stated.



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Evidence(सबूत): the available body of facts or information indicating whether a belief or proposition is true or valid.

Verification(जाँच): the process of establishing the truth, accuracy, or validity of something.

Proof(प्रमाण): evidence or argument establishing a fact or the truth of a statement.

Hence, **option A** is the correct answer.

21. Ans. B.

Let initial radius be 10 cm

$$\text{Area} = \pi \times r^2$$

$$\pi \times (10)^2 = 100\pi$$

new radius after diminishing = 10 - 20% of 10 = 8

$$\text{New Area} = \pi \times (8)^2 = 64\pi$$

$$\text{Percentage change} = \frac{\text{initial} - \text{final}}{\text{initial}} \times 100$$

$$\text{Percentage change} = \frac{100\pi - 64\pi}{100\pi} \times 100 = 36\%$$

22. Ans. C.

Let the side of the square be x and diagonal d.

$$\text{So, } x^2 + x^2 = d^2$$

$$\sqrt{2}x = 8\sqrt{2}$$

$$x = 8 \text{ m}$$

$$\text{Area of a square} = x^2 = 64 \text{ m}^2$$

23. Ans. D.

$$\text{Average} = \frac{\text{Sum of observations}}{\text{Total number of observations}}$$

$$23 = (\text{Sum of observations}) / 9$$

$$\text{Sum of observations} = 23 \times 9 = 207$$

If 2 is added to all the 9 numbers

$$\text{Average} = [207 + 2 \times (9)] / 9$$

$$\text{Average} = 225 / 9 = 25$$

Short Trick:

If the average of n numbers is "a" and if "x" is added or subtracted from each given number, then average becomes (m + x) and (m - x) respectively.

So, the new average = 23 + 2 = 25.

24. Ans. D.

Let the numbers be a, b and c, where a is the largest and c the smallest.

$$c = a/2 \text{ (given)}$$

$$a = 18 \text{ and } c = 9$$

$$(a + b + c) / 3 = 13$$

$$a + b + c = 39$$

$$9 + b + 18 = 39$$

$$b = 12$$

25. Ans. B.

$$\text{Average} = \frac{\text{Sum of observations}}{\text{Total number of observations}}$$

$$37 = (\text{Sum of observations}) / 15$$

$$\text{Sum of observations} = 37 \times 15 = 555$$

If 7 is subtracted from all the 15 numbers

$$\text{Average} = [555 - 7 \times (15)] / 15$$

$$\text{Average} = 450 / 15 = 30$$

Short Trick:

If the average of n numbers is "a" and if "x" is added or subtracted from each given number, then average becomes (m + x) and (m - x) respectively.

So, the new average = 37 - 7 = 30.

26. Ans. C.

$$12x^2 - 21x + 1 = 0$$

$$12x^2 + 1 = 21x$$

Divide the equation by 3x

$$4x + 1/3x = 7$$

Multiply by 3/4 both sides

$$3x + 1/4x = 21/4$$

Squaring the equation

$$9x^2 + \frac{1}{16x^2} = \frac{441}{16} - 3x \cdot \frac{1}{4x} = \frac{441}{16} - \frac{3}{2}$$

$$\text{Or } 9x^2 + (16x^2)^{-1} = 417/16.$$

27. Ans. B.

$$x^3 + y^3 + z^3 - 3xyz = (x + y + z) (x^2 + y^2 + z^2 - (xy + yz + zx))$$

$$(x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + zx)$$

$$9 = 101 + 2(xy + yz + zx)$$

$$xy + yz + zx = -46$$

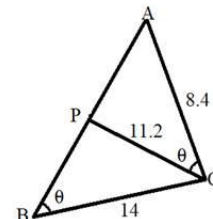
$$x^3 + y^3 + z^3 - 3xyz = 3 \times [101 + 46]$$

$$x^3 + y^3 + z^3 - 3xyz = 3 \times 147 = 441$$

$$\sqrt{x^3 + y^3 + z^3 - 3xyz} = \sqrt{441} = 21.$$

28. Ans. C.

In ΔABC & ΔAPC ,



$$\angle ABC = \angle ACP = \theta \text{ (Given)}$$

$$\angle A = \angle A \text{ (common Angle)}$$

$$\angle APC = \angle ACB$$

$$\Delta ABC \sim \Delta ACP$$

$$AP/AC = CP/BC$$

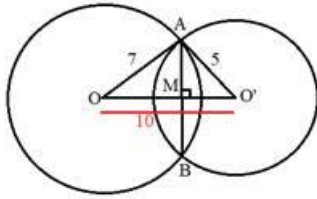
$$AP/8.4 = 11.2/14 = AC/AB$$



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$AP = 6.72$
 $AC/AB = AP/AC$
 $AB = (8.4 \times 8.4) / 6.72 = (0.6 \times 8.4) \times 0.48 = 10.5$
 $BP = 10.5 - 6.72 = 3.78 \text{ cm.}$
 29. Ans. B.



Let $OM = x$
 $O'M = 10 - x$
 $7^2 - x^2 = 5^2 - (10 - x)^2$
 $49 - x^2 = 25 - 100 - x^2 + 20x$
 $x = 6.2 \text{ cm}$
 $AM^2 = 7^2 - x^2$

$$\begin{aligned}
 AM^2 &= 49 - (6.2)^2 \\
 AM &= \sqrt{49 - \left(\frac{31}{5}\right)^2} \\
 AM &= \sqrt{49 - \frac{961}{25}} = \sqrt{\frac{49 \times 25 - 961}{25}} \\
 &= \frac{\sqrt{264}}{5} = \frac{2\sqrt{66}}{5} \\
 &= \frac{4\sqrt{66}}{5}
 \end{aligned}$$

$AB = 2AM = \frac{4\sqrt{66}}{5}$

30. Ans. A.
 $CP \times 108\% = MP \times 90\%$
 $MP/CP = 108/90$ or $CP/MP = 90/108 = 5/6$.



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