

# Lockdown 3.0 Study Plan

## Day 13



1. What is the installed power nuclear power capacity of India?

- A. 2246 MW
- B. 6780 MW
- C. 8990 MW
- D. 1650 MW

Ans. B

Sol.

The installed capacity of Nuclear power in India is approx. **6780 MW**.

- As of 2018-19 data, **22 nuclear reactors are operational in 7 nuclear plants**.

- At the end of 2019 seven reactors were under construction in India, with a combined capacity of 5.4 GWe.

- As per data analytics, the installed nuclear capacity is expected to reach 8180 MW by 2020.

2. The Kundankulam nuclear power plant (KKNPP) is developed by\_\_\_\_\_?

- A. Nuclear Power Corporation of India
- B. ISRO
- C. NTPC
- D. National Hydraulic Power Corporation

Ans. A

Sol.

Kundankulam Nuclear Plant is situated in **Tamil Nadu**.

- It is being developed by **Nuclear Power Corporation of India (NPCIL)**.

- **Atomstroyexport**, is the supplier of equipment and fuels for the nuclear power project.

- KKNPP is the single largest nuclear power station in India.

- It is scheduled to have six VVER-1000 reactors with an installed capacity of 6,000 MW of electricity.

3. The magazine propagated by Sir Syeed Ahmed Khan was?

- A. Tahdhib ul Akhlaq
- B. Miratul Akhbar
- C. Fatwa I Islami
- D. Azaad E Manzil

Ans. A

Sol.

The magazine propagated by Sir Syeed Ahmed Khan was **Tahdhib ul Akhlaq**.

- Sir Syeed Ahmed Khan was leading Muslim socio religious reformist of 19th century.

- He focused on modern education and dissemination of scientific knowledge among youth.

- He was **nominated to the Viceroy's Legislative Council** in 1878.

- He also received **knighthood** from British in 1888.

4. Faraizi Movement was founded by\_\_\_\_\_.

- A. Sir Syeed Ahmed Khan
- B. Haji Shariatullah
- C. Mirza Ghulam Ahmad
- D. Ahmed Khan

Ans. B

Sol.

Faraizi movement was founded by **Haji Shariatullah** in 1818.

- It was an Islamic socio-religious reform movement.

- It aimed at eradication of Un-Islamic practices prevalent in Muslims and aimed at duties of individual as a Muslim.

- **Dudu Mian** became a major leader of this movement in later times and it became revolutionary from 1840 onward.

- Dudu Mian's arrest in 1847 finally weakened the movement.

5. Which Islamic reformist movement was founded by Mirza Gulam Ahmad?

- A. Ahmadiyya Movement
- B. Faraizi Movement
- C. Sir Syed Ahmed Khan
- D. Shah Abdul Aziz

Ans. A

Sol.

Mirza Gulam Azad established the **Ahmediyya Movement** around 1889.

- It was based on liberal principles and played the similar role as played by Brahmo samaj in Hindu Society.

- They believed in separating Religion from State for development of society.

- It advocated the spread of western education among Muslims and focused on universal religion of humanity instead of jihad.



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6. Titu Mir was follower of which of the following?

- A. Wahabi Movement
- B. Aligarh Movement
- C. Deoband Movement
- D. Ahmediya Movement

Ans. A

Sol.

Titu Mir was the follower of **Wahabi Movement**.

- He was disciple of **Sayyed Ahmed Barelvi**, the founder of Wahabi Movement.
- The two other main followers of Wahabi Movement were – **Shah Abdul Aziz and Syed Ahmed Barelvi**.
- Wahabi movement was focused on revival of pure Islam and advocated for eradication of western inputs in Muslim society and religion.

7. Sudharak newspaper was started by?

- A. GG Agarkar
- B. MG Ranade
- C. Gopalhari Deshmukh
- D. Jyotiba Phule

Ans. A

Sol.

**Gopal Ganesh Agarkar** started the newspaper Sudharak in 1888.

- Gopal Ganesh Agarkar an eminent socio-religious reformer of 19th century.
- His life was a continuous battle for social reforms like the elevation of the status of women and the elimination of the caste system.
- He was also **co-founder** of **New English School and Deccan Education Society**.

8. The process of heat application to a material to alter its physical and sometimes chemical properties is known as?

- A. Grading
- B. Quenching
- C. Leaching
- D. Annealing

Ans. D

Sol.

The process of heat application to a material to alter its physical and

sometimes chemical properties is known as **Annealing**.

- Annealing involves heating steel to a specified temperature and then cooling at a **very slow and controlled rate**.
- Annealing is generally done for softening of metal, increasing its electrical conductivity and reducing its hardness.
- During the annealing process, the metal is heated to a specific temperature where **recrystallization** can occur.
- It may be of following types –
  - a) **Above critical temperature**- Complete annealing, Diffusion annealing, incomplete annealing and Spherification annealing.
  - b) **Below critical temperature**- recrystallisation annealing and Stress annealing

9. Quenching Reactions are those reactions which?

- A. Decreases the intensity of any substance
- B. Increases the intensity of any substance
- C. Are independent of pressure and temperature conditions
- D. Catalyses the rate of reaction at constant temperature

Ans. A

Sol.

**Quenching Reactions** are those reactions which decrease the intensity of any substance.

- **Molecular oxygen, iodide ions and acrylamide** are common chemical quenchers.
- The **chloride ion** is a well known quencher for quinine fluorescence.
- Forster resonance energy transfer, Dexter electron transfer, Exciplex, Static quenching and Collisional quenching are some types of different quenching methods.
- In general, quenching occurs without any permanent change in the molecules, that is, without a photochemical reaction.

10. The ..... possessed by the object is the energy present in it by virtue of its position or configuration?



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- A. Kinetic Energy
- B. Potential Energy
- C. Thermal Energy
- D. Space Energy

Ans. B

Sol.

The **Potential Energy** possessed by the object is the energy present in it by virtue of its position or configuration.

- While the energy stored in the body due to its motion or speed is known as Kinetic energy, it is directly proportional to square of speed of an object.
- The energy gained by an object due to gain of height is known as gravitational potential energy. It is equal to **P.E= mgh**
- Gravitational potential energy has the same units as kinetic energy: **kg m<sup>2</sup> / s<sup>2</sup>**

**11. Select the most appropriate meaning of the underlined idiom in the given sentence.**

Our PM is received with open arms wherever he goes.

- A. Honourably
- B. Promptly
- C. Warmly
- D. Harmoniously

Ans. C

Sol.

"With open arms" means with great affection or enthusiasm. Option C "warmly" is closest to this meaning. That is why C is the right answer.

**12. Select the most appropriate meaning of the underlined idiom in the given sentence.**

Mrs. Arora has got the green light from the principal to organise a science conference in the college.

- A. Got permission to go ahead with something
- B. Got energy and motivation to do something
- C. Got fired for doing something
- D. Got the work started

Ans. A

Sol.

"Get the green light" means "to receive permission to proceed with some action or task" which is similar to "got

permission to go ahead with something". Hence option A is correct.

13. In the following question, the given sentence has four parts marked P, Q, R and S. Choose the part of sentence with the error and mark as your answer. If there is no error, mark 'No error (S)' as your answer.

The behaviour of resident spiders (P)/ towards pirate spiders and their own prey (Q)/ are quite different. (R)/ No error (S)

- A. P
- B. Q
- C. R
- D. S

Ans. C

Sol.

'Behaviour' is a singular noun, hence, the verb must also be singular to maintain subject-verb agreement. Therefore, 'are' must be replaced with 'is' to form a grammatically correct sentence.

Hence, option C is the correct answer.

14. Choose the correct antonym of the given word from the options given below. INUNDATION

- A. Flood
- B. Torrent
- C. Tide
- D. Drought

Ans. D

Sol.

The meanings of the words are:

Inundation: flooding.

Flood: an overflow of a large amount of water beyond its normal limits, especially over what is normally dry land.

Torrent: a strong and fast-moving stream of water or other liquid.

Tide: the alternate rising and falling of the sea, usually twice in each lunar day at a particular place, due to the attraction of the moon and sun.

Drought: a prolonged period of abnormally low rainfall, leading to a shortage of water.

Hence, option D is the correct answer.

**15. Select the most appropriate option to substitute the underlined segment in the given sentence. If**



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**there is no need to substitute it, select 'No substitution'.**

I think you and me owe him an explanation. A. You and I

B. No substitution

C. You and mine

D. Your and I

Ans. A

Sol.

Subjective and objective pronouns are simply pronouns that occur in either the subject or the object of the sentence. Subjective pronouns tell us who or what the sentence is about. Objective pronouns receive the action in the sentence. Here the underlined part is the subject of the second clause so subjective pronoun "I" should be used in place of "me". Option A fulfills all the conditions so it is the correct option.

**16. Select the most appropriate option to fill in the blank.**

Many dermatologists \_\_\_\_\_ products which have hyaluronic acid as it helps relieve dryness of the skin.

A. blend

B. extend

C. recommend

D. tend

Ans. C

Sol.

"To recommend" means to put forward (someone or something) with approval as being suitable for a particular purpose or role. This is suitable for this sentence. The other options are irrelevant here. That is why C is the correct choice.

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

P: Lead author Margareta Hakanson said that the main reason seems to be "that the movements transferred from the horse's body to the rider are very like the body movements made by a person walking."

Q: Riding on horseback not only eases back pain, but also boosts the rider's confidence and emotional well being, according to a new study.

R: These findings contribute to the growing body of evidence that horseback riding and related equine assistance therapy programs for disabled and injured individuals benefit human participants.

S: There are no excessive movements, but a continuous bilateral influence on postural balance that enhances balance reactions and the fine movements in the rider's trunk

A. RSQP

B. QRPS

C. PQRS

D. RPSQ

Ans. B

Sol.

Sentence Q states the subject of this paragraph i.e. benefits of horse riding found by a new study. The other sentences further discuss about how the body movements on the horseback are advantageous for the riders. Therefore B is the right answer as it puts sentence Q in the beginning of the sequence.

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

He asked me that if he could have my pen. I answered in the affirmative. A. He said to me, "If I could have your pen?" I said "Yes."

B. He asked me, "Could I have your pen?" I answered in the affirmative.

C. He asked me, "If he could have my pen? I answered in the affirmative."

D. He said to me, "Can I have your pen?" I said, "Yes."

Ans. D

Sol.

The given sentence is in indirect form of narration. It has to be converted from indirect to direct form. The given sentence has two parts.

The first part is in interrogative form. It is a kind of yes/no questions. Here 'asked' will be changed to 'said to' in the direct narration. In yes/no questions the reporting part and the reported parts are joined with conjunction 'if/whether'. The conjunction will be removed. The pronoun

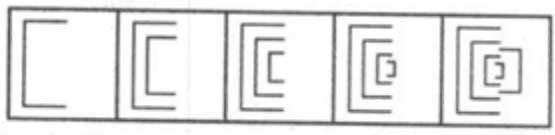


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of the reported speech 'he' is changed to 'I'. The reported verb will be made interrogative i.e. it is kept in the order of verb + subject form. Also, the modal verb 'could' will be changed to 'can'. Question mark(?) will be placed at the end of the interrogative sentence.

The second part i.e. the reply part of the question is in assertive form. In such question if the reply is 'answered in the affirmative' then it will be converted to 'yes' and if the reply is 'answered in the negative' then it will be replaced with 'no'. So the correct answer is option D.

19. In the question given below which of the option figures will come after the problem figures, if the sequence were continued?



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

Ans. A

Sol. Diagram increase upto 3<sup>rd</sup> question figure rightward and three half square type figure formed and it continuing but in reverse structure.

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

- GI, IK, LN, ?
- A. RS
  - B. PR
  - C. TQ
  - D. SP

Ans. B

Sol.

Logic:

$$G(+2) = I, I(+3) = L, L(+4) = P$$

$$I(+2) = K, K(+3) = N, N(+4) = R$$

Hence, option B is the correct answer.

21. In each of the question given below which one of the five answer figures should come after the problem figures, if the sequence were continued?

**Question figure :**



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

Ans. A

Sol. A moves anticlockwise and covers two sides, K clockwise half side then full one side then again side, □ moves

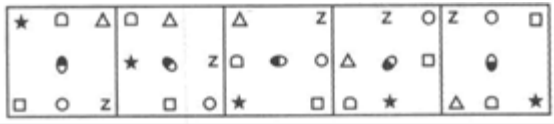
anticlockwise  $\frac{1}{2}, 1, 1\frac{1}{2}, \dots$  sides middle

diagram (0) becomes twice then single then twice and so on.

Hence, option A is correct response.

22. In each of the question given below which one of the five answer figures should come after the problem figures, if the sequence were continued?

**Question figures :**



Answer figures :



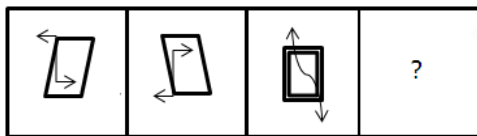
- A. Fig.(1)
- B. Fig.(2)
- C. Fig.(3)
- D. Fig.(5)

Ans. D

Sol. All diagram accept middle moves anticlockwise by 1/2 side and changing their place but middle diagram without changing place, moves 45° anticlockwise.

Hence, answer figure (5) is correct.

23. Select the figure that will come next in the following figure series.

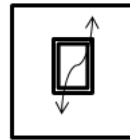


- A.
- B.
- C.
- D.

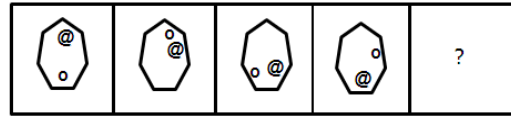
Ans. D

Sol.

After carefully observing the figures given in the question, it is very clear that the answer figure(D). will be the next figure. Logic-figure 1 flipped vertically to obtain figure 2, similarly, figure 3 flipped vertically to obtain figure 4.



Hence, the correct answer is option D.  
24. Select the figure that will come next in the following figure series?

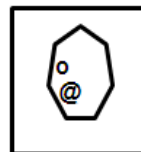


- A.
- B.
- C.
- D.

Ans. A

Sol.

**Logic is:** @ is moving one place clockwise in each step and o is moving three places anticlockwise in each step. After carefully observing the figures given in the question, it is very clear that the answer figure(A) will be the next figure.



Hence, option A is the correct response.

25. Read the following information and answer the questions given below it:

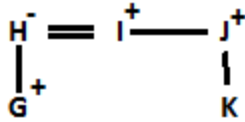
- 'A + B' means 'A is the son of B'.
- 'A - B' means 'A is the wife of B'.
- 'A × B' means 'A is the sister of B'.
- 'A ÷ B' means 'A is the brother of B'.
- 'A = B' means 'A is the father of B'.

In the expression  $G + H - I \div J = K$ , how is H related to K.

- A. Aunt
- B. Mother
- C. Nephew
- D. Can't be determined

Ans. A

Sol.



K is the child of J who is I's brother which means I is the uncle of K.

Since H is the wife of I. therefore, H is the aunt of K.

Hence, option A is the correct answer.

26. A letter series is given below in which some letters is missing. Select the option that gives the letters that can fill these blanks in that order.

pr\_vp\_tv\_rt\_

- A. sqpv
- B. stpv
- C. trpv
- D. tqsv

Ans. C

Sol.

The pattern is - prtv

Hence, the complete series is - prtv/prtv/prtv.

Hence, option C is correct answer.

27. In a code language **GARDEN** is written as **EYKBCG**. How will **BALD** be written as in that language.

- A. AAEF
- B. ZAEF
- C. ZYEB
- D. ZAEC

Ans. C

Sol.

Here the logic is : 2 is subtracted to the alphabets having single digit place value, and two is added to the sum of the digits in case of alphabets having two digits place value.

$G \rightarrow 7-2 = 5$  Which is the place value of E

$A \rightarrow 27-2 = (25)$  Which is the place value of Y

$R \rightarrow 1+8=9$  and  $9+2=11$  Which is the place value of K

$D \rightarrow 4-2=2$  Which is the place value of B

$E \rightarrow 5-2=3$  Which is the place value of C

$N \rightarrow 1+4=5$  and  $5+2=7$  Which is the place value of G

Similarly,

**BALD** is written as **ZYEB**

Hence, option C. is the correct answer.

28. In a particular year, the number of students enrolled in different streams in a College is as follows:

Science		Arts		commerce		Vocational	
Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
32	18	28	45	42	42	13	30

The percentage of girl students is:

- A. 50%
- B. 54%
- C. 135%
- D. 46%

Ans. B

Sol.

Total number of girls =  $18 + 45 + 42 + 30 = 135$

Total number of students =  $32 + 18 + 28 + 45 + 42 + 42 + 13 + 30 = 250$

Required Percentage =  $(135/250) \times 100 = 54\%$

29. The value of  $3 - (9 - 3 \times 8 \div 2)$  is:

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

Ans. D

Sol.

In the given expression applying BODMAS rule:

$$\begin{aligned} 3 - (9 - 3 \times 8 \div 2) &= 3 - (9 - 3 \times 4) \\ &= 3 - (9 - 12) \\ &= 3 - (-3) \\ &= 3 + 3 = 6 \end{aligned}$$

30. If  $1 - 64x^3 - 12x + px^2 = (1 - 4x)^3$ , then the value of p is:

- A. -12
- B. 16
- C. -48
- D. 48

Ans. D

Sol.



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Here, applying the formula:  $(a - b)^3 = a^3 + (-b)^3 + 3(a)^2(-b) + 3a(-b)^2$   
 $(1 - 4x)^3 = 1 - 64x^3 - 3 \times (4x) + 3 \times 1 \times (-4x)^2 = 1 - 64x^3 - 12x + 48x$   
 Since,  $1 - 64x^3 - 12x + px^2 = 1 - 64x^3 - 12x + 48x$   
 On comparison,  
 $\therefore p = 48$

31. 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  
 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.**

So,  $(9 + 5 + 8) - (2 + x + 5) = 15 - x = 0$  or 11  
 $\therefore$  smallest possible value of  $x = 4$   
 [Or you can substitute the options one by one in the given number and check]

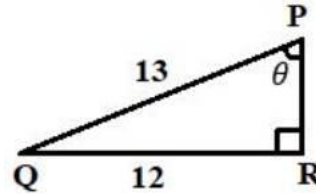
32. The value of  $151^2 - 149^2$  is:  
 A. 300  
 B. 600  
 C.  $2^2$   
 D. 400  
 Ans. B  
 Sol.

Use the formula:  $a^2 - b^2 = (a - b)(a + b)$   
 $\therefore 151^2 - 149^2 = (151 - 149)(151 + 149)$   
 $= 2 \times 300 = 600$

33. 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.  
 MRP = Rs. 5,040  
 Discount% = 40%  
 SP =  $5,040 \times (60/100) = \text{Rs. } 3,024$

Since, Profit % = 20%  
 Then, CP =  $3,024 \times (100/120) = \text{Rs. } 2,520$   
 So, Profit = 20% of 2,520 = **Rs. 504**

34. In the given figure,  $\cos\theta$  is equal to:



A. 12/13  
 B. 12/5  
 C. 5/12  
 D. 5/13  
 Ans. D  
 Sol.

In right triangle PRQ, by Pythagoras theorem  
 $PR^2 = PQ^2 - QR^2 = 13^2 - 12^2 = 25$   
 $\Rightarrow PR = 5$  unit  
 $\therefore \cos\theta = PR/PQ = 5/13$

35. If  $A : B = 3 : 5$ , and  $B : C = 2 : 3$ , then  $A : B : C$  is equal to:  
 A. 6 : 10 : 15  
 B. 3 : 8 : 6  
 C. 6 : 15 : 10  
 D. 3 : 7 : 3  
 Ans. A  
 Sol.

$$A : B = 3 : 5$$

$$B : C = 2 : 3$$

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$$A : B : C = 3 \times 2 : 5 \times 2 : 5 \times 3$$

$\therefore A : B : C = 6 : 10 : 15$



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